KV-X21TD
RM-673

SERVICE MANUAL

AEP Model
Chassis No. SCC-B14G-A

AE-1 CHASSIS

Note : The service manual for RM-673 has been issued separately.

MODELS OF THE SAME SERIES	
KV-X21TD	KV-X25TD
KV-21XSD	KV-25XSD
KV-21XSTD	KV-25XSTD

SPECIFICATIONS

Television system	CCIR B, G and H
Color system	PAL, SECAM
Stereo system	German two-carrier system
Channel coverage	VHF channels E2 – E12 UHF channels E21 – E69 Cable TV channels S1 – S20 (A total of up to 30 preselected channels)
Picture tube	Trinitron tube 100-degree deflection Approx. 54.5 cm (21 inches) (Approx. 51 cm picture measured diagonally)
Inputs	21-pin connector : CENELEC Standard 21-pin connector : RGB input unconnected
Outputs	Headphones jack : stereo minijack External speaker terminals : 2-pin DIN Audio output jack : phonojack output level depended upon TV setting
Power consumption	84 Wh
Dimensions	Approx. 518 × 465 × 475 mm (w/h/d)
Weight	Approx. 26 kg
Supplied accessories	RM-673 Remote Commander (1) IEC designation R6 batteries (2)
Audio output	10 W + 10 W (music power)

Design and specifications are subject to change without notice.

MICROFILM

TRINITRON® COLOR TV

SONY®

TABLE OF CONTENTS

Section *Title* *Page*

1. GENERAL

1-1. First of All 3
1-2. Connecting Other Equipment 3
1-3. Function of Controls 5
1-4. Viewing Teletext 7

2. DISASSEMBLY

2-1. Rear Cover Removal 8
2-2. Chassis Assy Removal 8
2-3. J1, A and V Boards Removal 8
2-4. KS and B Boards Removal 9
2-5. Picture Tube Removal 9
2-6. Service Position 10

3. SET-UP ADJUSTMENTS

3-1. Beam Landing 11
3-2. Convergence 12
3-3. Focus 13
3-4. White Balance 14

Section *Title* *Page*

4. CIRCUIT ADJUSTMENTS

4-1. B Board Adjustments 15
4-2. D Board Adjustments 16
4-3. A Board Adjustments 16
4-4. J1 Board Adjustments 17
4-5. V Board Adjustments 17
4-6. SUB Adjustments 17

5. DIAGRAMS

5-1. Block Diagram 19
5-2. Circuit Boards Location 24
5-3. Schematic Diagram 25
5-4. Printed Wiring Boards 30
5-5. Semiconductors 46

6. EXPLODED VIEWS

6-1. Rear Cover 47
6-2. Picture Tube 48

7. ELECTRICAL PARTS LIST 49

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1
GENERAL

Note) The layout, etc., will be slightly different from the operating instructions packed with the units.

1－1. FIRST OF ALL

1 Connect the aerial to the ┐┌ socket on the rear of the set.
This socket receives the standard 75-ohm aerial plug.
2 Plug in the set.
3 Tune in the available channels.

Use the buttons inside the panel. To open the panel, push the center.

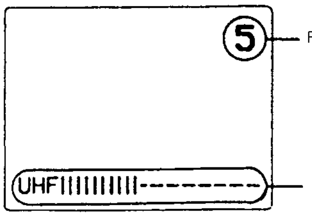
To tune in all channels automatically :
1 Press ⇨ (preset).
2 Press PROGR to select the program position from which tuning is to start.
3 Press ⇨ (auto programing).

The channels will be tuned in and memorized in consecutive positions, beginning from the program position selected in step 2.
When tuning has been completed, the set returns to the position where tuning began.

To tune in a channel in any desired program position.
(e. g. the position which the same number as the channel) :
1 Press ⇨ (preset).
2 Press PROGR to select the desired program position.
3 Press C (clear).
4 Press ⊞ (search) repeatedly until the desired channel appears.
5 Repeat steps 2 to 4 for all channels, if required.
6 Press ⇨ (preset) again.

If the set is to be used in an area with poor reception, preset the program numbers between 1 and 19 for TV program use.
To have the unused program positions skipped when PROGR+ or PROGR－ is pressed
1 Press ⇨ (preset).
2 Press PROGR to select the unused position.
3 Press C (clear).
4 Repeat steps 2 and 3 for all unused position.
5 Press ⇨ (preset) again.

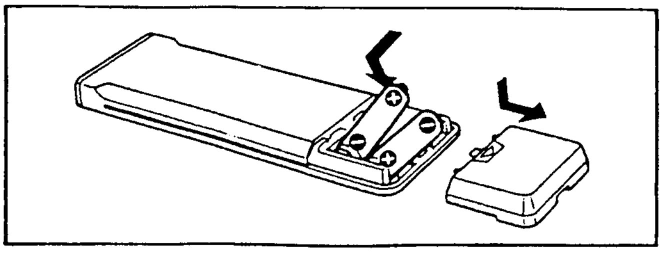
On-screen display while tuning



Program position

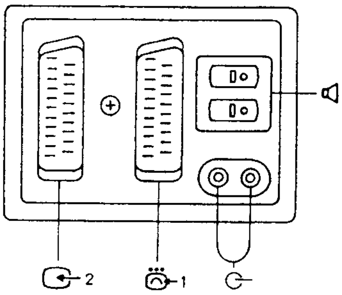
Indicates the approximate location in the band of the channel being tuned in.
The number of upright segments increase for a higher-frequency channel and decrease for a lower-frequency channel.

4 Insert two R6 batteries checking the correct polarity.



1－2. CONNECTING OTHER EQUIPMENT

connectors on rear set



L/G/S	Left external speaker terminal (2-pin DIN)	Connect to external speakers. The TV speakers will be disconnected. speakers 8－16 Ω
R/D/D	Right external speaker terminal (2-pin DIN)	
R/D/D	Right audio output jack (phono jack)	Connect to audio equipment. When only using the phono-jacks, two loudspeaker plugs, (DIN 41529) should be insarted into the extemal speaker termi nals so that the TV spaker output is switched off.
L/G/S	Left audio output jack (phono jack)	
⊛-1	21-pin connector (CENELEC standard)	Connect to a VTR micro computer, etc. The picture of the TV channel being received is always output. The picture of ⊖-2 can be watched whlle recording a TV program with the VTR connected to ⊛-1.
⊖-2	21-pin connector (without RGB input)	Connect to second VTR. The picture displayed on the screen is always output. The picture of ⊛-1 can be recorded with the VTR connected to ⊖-2 while monitaring the picture.

VTR operation using the supplied Commander

Remote operation of the VTR (8mm only) is limited to the features and functions of the VTR. For further details, refer to the VTR manual.
When watching a video with the VTR connected to the ┐┌ connector, set the channel for the video to the program number 0 or any empty channel between 20 and 29.

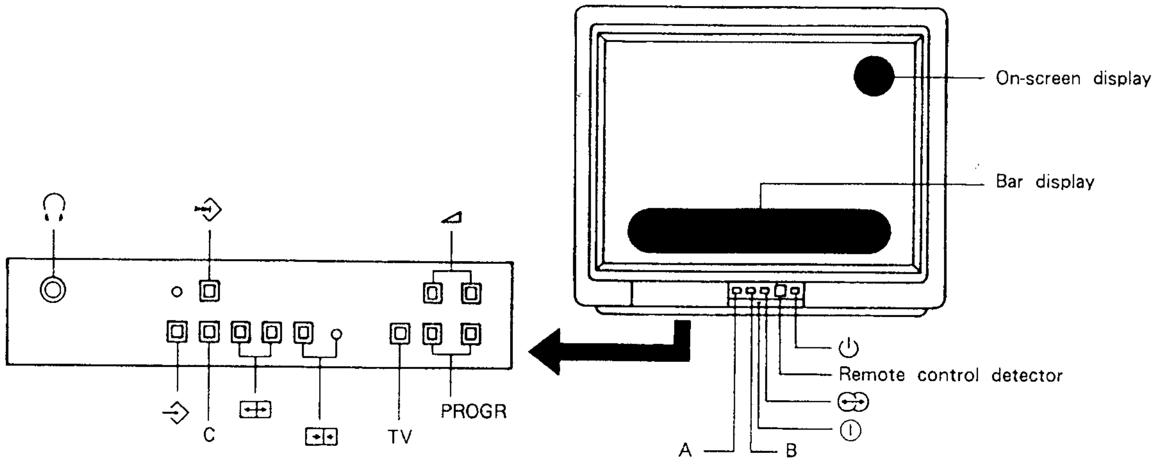
Note
Move the VTR away from the TV, if the picture or sound is distorted.

21pin connector (⊛-1, ⊖-2)

Pin No.	⊛-1	⊖-2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5 Vrms Output impedance : Less than 1 k ohm*
2	○	○	Audio input B (right)	Standard level : 0.5 Vrms Input impedance : More than 10 k ohms*
3	○	○	Audio output A (left)	Standard level : 0.5 Vrms Output impedance : Less than 1 k ohm*
4	○	○	Ground (audio)	
5	○ (blue)	○	Ground	
6	○	○	Audio input A (left)	Standard level : 0.5 Vrms Input impedance : More than 10 k ohms*
7	○	●	Blue input	0.7 V ±2 dB, 75 ohms, positive
8	○	○	Function select (AV control)	High state (9.5−12 V) : Part mode Low state (0−2 V) : TV mode Input impedance : More than 10 k ohms Input capacitance : Less than 2 nF
9	○ (green)	○	Ground	
10	○	○	Open	
11	○	●	Green/Green with sync input	Green signal : 0.7 V ±2 dB, 75 ohms, positive Green with sync signal : 1 V ±2 dB, 75 ohms, positive
12	○	○	Open	
13	○ (red)	○	Ground	
14	○	○	Ground (blanking)	
15	○	●	Red input	(Same as Pin 7)
16	○	●	Blanking input (Ys signal)	High state (1−3 V) Low state (0−0.4 V) Input impedance : 75 ohmes
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1 V ±2 dB, 75 ohms, positive Sync : 0.3 V (−3, ±10 dB)
20	○	○	Video input	1 V ±2 dB, 75 ohms, positive Sync : 0.3 V (−3, ±10 dB)
21	○	○	Common ground (plug, shield)	

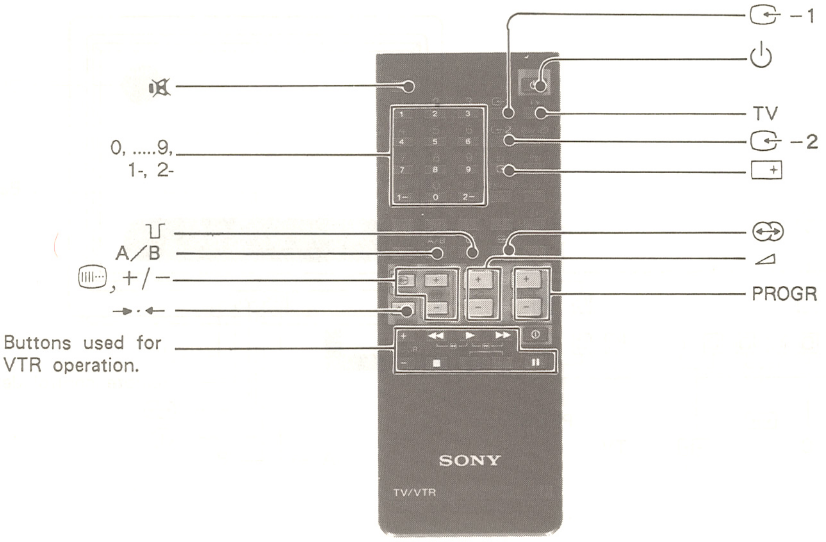
* at 20 Hz−20 kHz ○ connected ● unconnected (open)

1–3. FUNCTION OF CONTROLS



On the set
On-screen display Indicates program numbers and ⊖ input modes. Bar display Indicates the level of ⊿ volume, ⊛ color, ☼ brightness, ◑ contrast, 𝄢 bass, 𝄞 treble and ⊳⊲ balance. Note on ⊳⊲ function. When the volume is at the minimum setting the balance ⊳⊲ function will not operate. Ⓘ Power switch To cut off the mains power completely, press this switch. Depress the power switch fully to ensure correct operation of the set. Note To ensure correct operation, push the switch in fully. ⏻ standby indicator Lights up brightly when the set is in the standby mode. Note If the main power is turned off when in standby mode, the standby indicator will take 2 to 6 seconds to go off. ⊜ space sound indicator Lights up when ⊜ on the Remote Commander is pressed. A/B indicators One of them lights during bilingual broadcast. (Choose A or B with the Remote Commander.) Both light during stereo broadcast. In AV mode, A lights for left channel, B for right channel, or A and B for both channels. Remote control detector Point the Remote Commander towards this detector.

Inside the panel
∩ headphones jack (stereo minijack) ⊞ SEARCH buttons Press to fine tune a weak channel manually, if required. When ⊞ is pressed, the ⊡ indicator (AFT) goes off and the AFT cricuit does not function on the selected channel. To restore the AFT circuit on this channel, press ⊡ (AFT) so that the indicator lights up. ⊡ AFT button and indicator Normally, press ⊡ (AFT) so that the indicator lights up. The AFT circuit automatically fine tunes the channel for the best possible picture. ⊿ volume buttons PROGR+, PROGR− program scan buttons



RM-673

On the Remote Commander

To operate the Commander, point it toward the remote control detector.

🔇 mute button

0, ... , 9, 1-, 2- buttons
To tune into :
program 15, press 1- and 5.
program 25, press 2- and 5.

A/B button
Press to select the language in a bilingual broadcast, or to select the channel in AV mode.

▥, +/− analogue select buttons
Press ▥.
◑ will appear on the screen. Adjust by pressing + or −. Press ▥ again and adjust ❂ (color), then ☼ (brightness), 𝄢 (bass), 𝄞 (treble) and ⊿ (balance).

→•← reset button
Press to reset color, contrast and brightness to factory-set levels.

⏻ standby button
Press to change to the standby mode. Use this button to turn off the set for short periods of time.
To turn on the set, press TV or the program number ; there will be a slight delay before the picture is restored.
If the main power is turned off when in standby mode, the tandby indicator will take 2 to 6 seconds to go off.

TV button
Press to change to the TV mode from standby, ⇥ input or teletext modes.

⇥1 input button
Press to view the input picture coming in through the ⇥1 connector.
"⇥1" lights up on the screen.
Press TV or the program number to return to the TV mode.

⇥2 input button
Press to view the input picture coming in through the ⇥2 connector.
"⇥2" lights up on the screen.
Press TV or the program number to return to the TV mode.

⊞ on-screen display button.
Press to make the display appear on the screen.
Press again to make it disappear.

⎍ loudness button
Press to emphasize high and low notes.

⇔ space sound button
Press to obtain special acoustic effects.

⊿ volume buttons

PROGR program scan buttons

Note
Buttons not referred to on this page or next page do not operate.

1–4. VIEWING TELETEXT

To view the teletext service, use the Remote Commander. The buttons for teletext operation are indicated in green.

Operation

1 Select the TV channel for the desired teletext service.
2 Press ⊜/⊜ (TEXT / MIX) to display the teletext service.
Once ⊜/⊜ has been pressed, the TV channel cannot be changed.
3 Key in the three digits for the desired page using the number buttons. If an error is made, complete the three-digit sequence by keying in any digit. Then re-enter the correct page number. The requested teletext page is displayed.

To return to the TV mode, press TV on the remote cammander.

The teletxet service can be displayed directly from the standby mode, by pressing ⊜/⊜.

To receive the teletext service of a different TV channel
1 Press TV to return to the TV mode.
2 Select the desired TV channel.
3 Press ⊜/⊜.

Note
To receive the teletext service accurately, keep ⊞ inside the panel switched on during teletext operation.

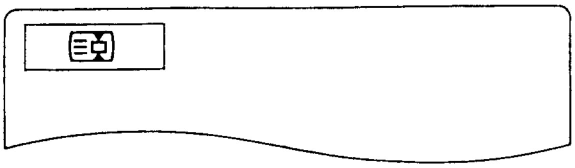
To display the index page
Press (≡i) (INDEX).
If the necessary signal is not being broadcast, page 100 is displayed.

To access the next or preceding page
Press (≡+) (PAGE+) or (+≡) (PAGE−).

To superimpose the teletext display on the TV picture
Press ⊜/⊜ twice from TV mode.
Press again to return to the TEXT display.

To suppress the teletext display so that the TV picture is displayed
Press (≡x) (TEXT CL).
This button can be operated from both the TEXT and MIX displays.

To prevent a teletext page (subpage) from being updated /changed
Press (≡⊕) (HOLD). The HOLD symbol appears at the top of the screen.



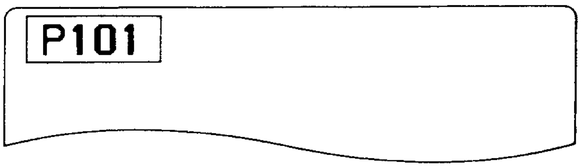
To resume normal teletext reception, press ⊜/⊜.

To enlarge the teletext display
Press (≡÷).
Press once to enlarge the upper half of the display ; press again to enlarge the lower half of the display ; press again to return to the normal display.

To reveal concealed infomation such as the answers to a quiz
Press (≡?) (REVEAL).
Press again to conceal the answers.

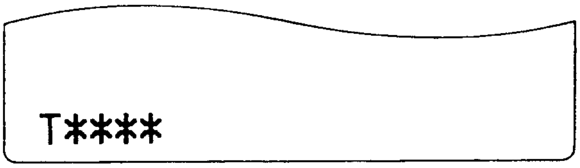
To adjust the contrast of the teletext display.
When in teletext mode, adjust by using the + or − keys adjacent to the (Ⅲ) key.

To watch the TV program while waiting for a requested page to be displayed
1 Request the new page.
2 Press (≡x) to watch the TV program.
The requested page number appears at the top left of the screen.
When the requested page has been captured, the page number is displayed in the top left hand comer of the screen.

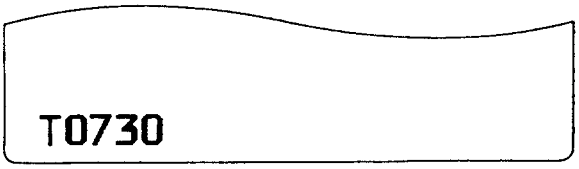


To view this page, press ⊜/⊜.

To have a requested page displayed at a pre-determined time
1 Request a time coded page (e. g. alarm page).
2 Press (≡⊙) (TP ON).
"T****" will appear at the bottom of the screen.



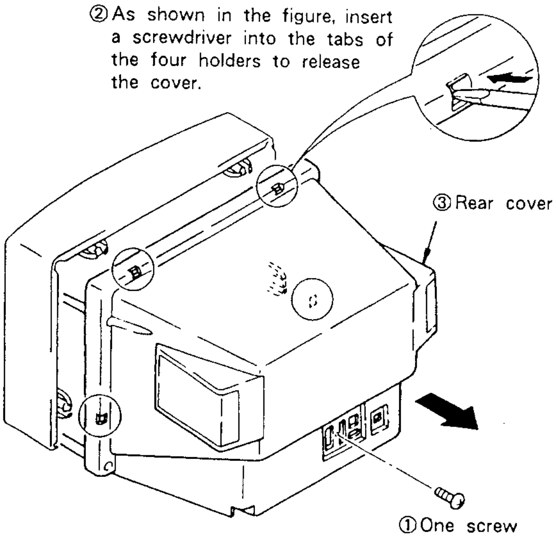
3 Enter your request time with the number buttons, using four digits. For example, 07 : 30.



To watch the TV program until the requested time, press (≡x). At the requested time, the page number will be displayed at the bottom of the screen.
To view this page, press ⊜/⊜.
To cancel the request, first ensure that the teletext page is displayed, then press (≡⊙) (TP OFF).

SECTION 2
DISASSEMBLY

2–1. REAR COVER REMOVAL

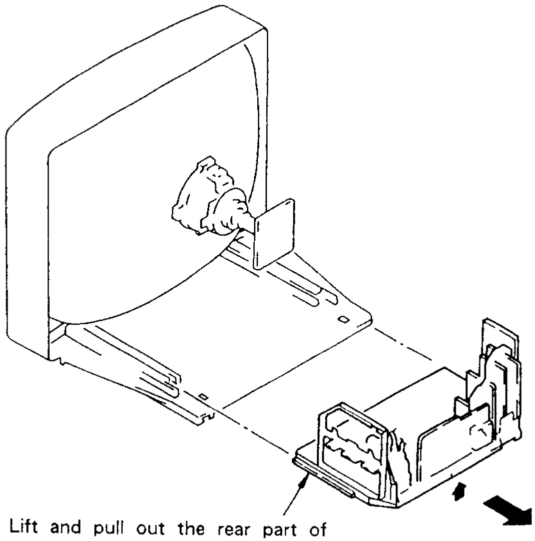


② As shown in the figure, insert a screwdriver into the tabs of the four holders to release the cover.

③ Rear cover

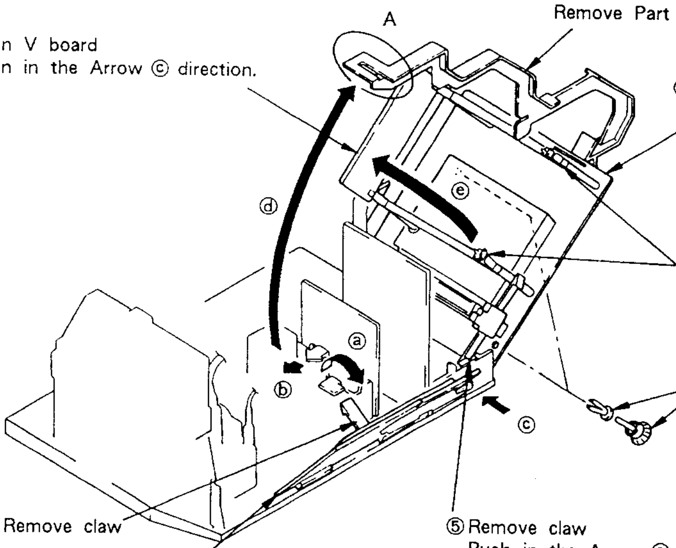
① One screw
(BVTP4 × 16)

2–2. CHASSIS ASSY REMOVAL



Lift and pull out the rear part of the main chassis toward the rear.

2–3. J1, A AND V BOARDS REMOVAL



④ Open PC board supporter
Remove Part A in the Arrow ⓑ direction.

⑧ Open V board
Open in the Arrow ⓒ direction.

⑥ Open A board
Open in the Arrow ⓓ direction.

⑦ Remove two claw

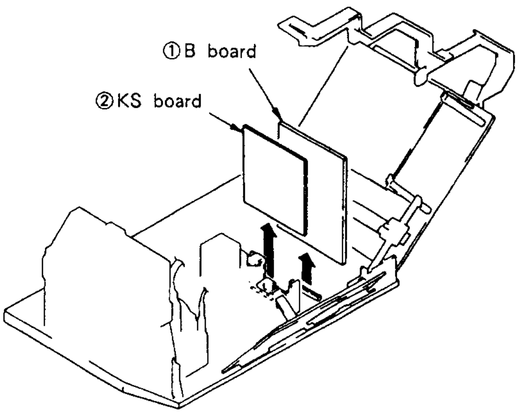
③ two rivet

① Remove claw

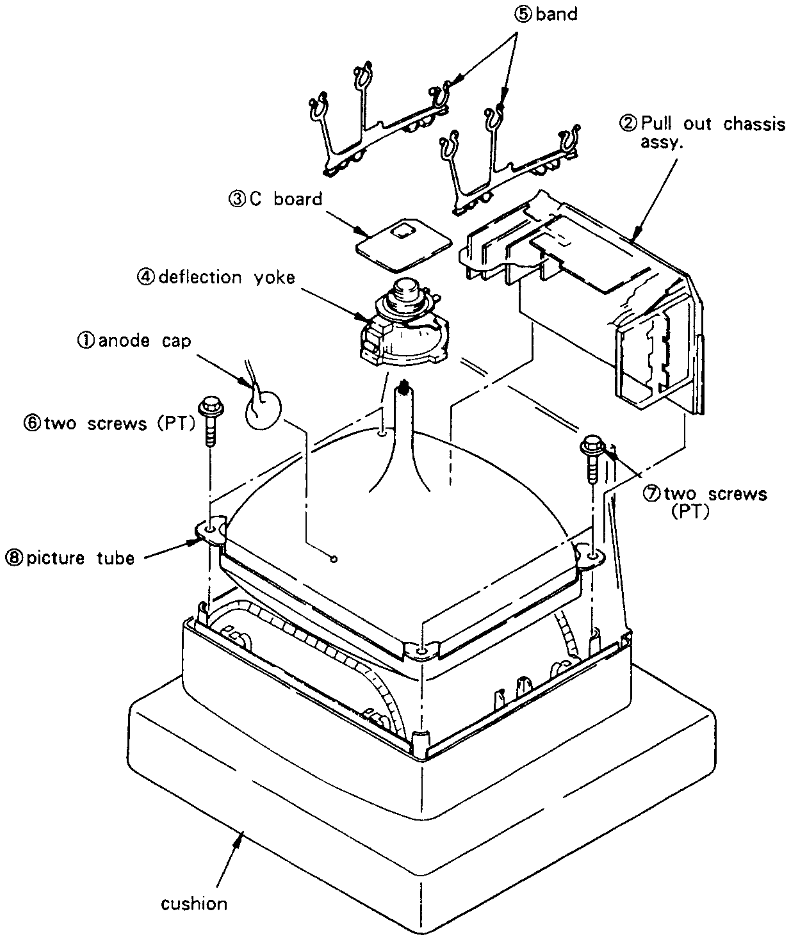
⑤ Remove claw
Push in the Arrow ⓒ direction.

② J1 board
Open in the Arrow ⓐ direction.

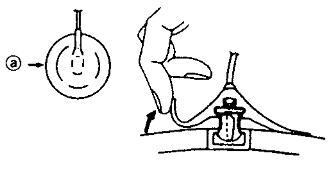
2-4. KS AND B BOARDS REMOVAL


①B board
②KS board

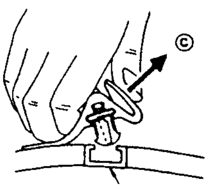
2-5. PICTURE TUBE REMOVAL


⑤band
②Pull out chassis assy.
③C board
④deflection yoke
①anode cap
⑥two screws (PT)
⑦two screws (PT)
⑧picture tube
cushion

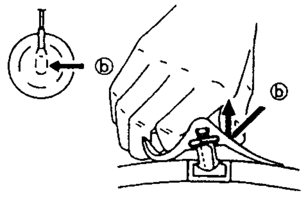
- **Removing Procedures**



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.

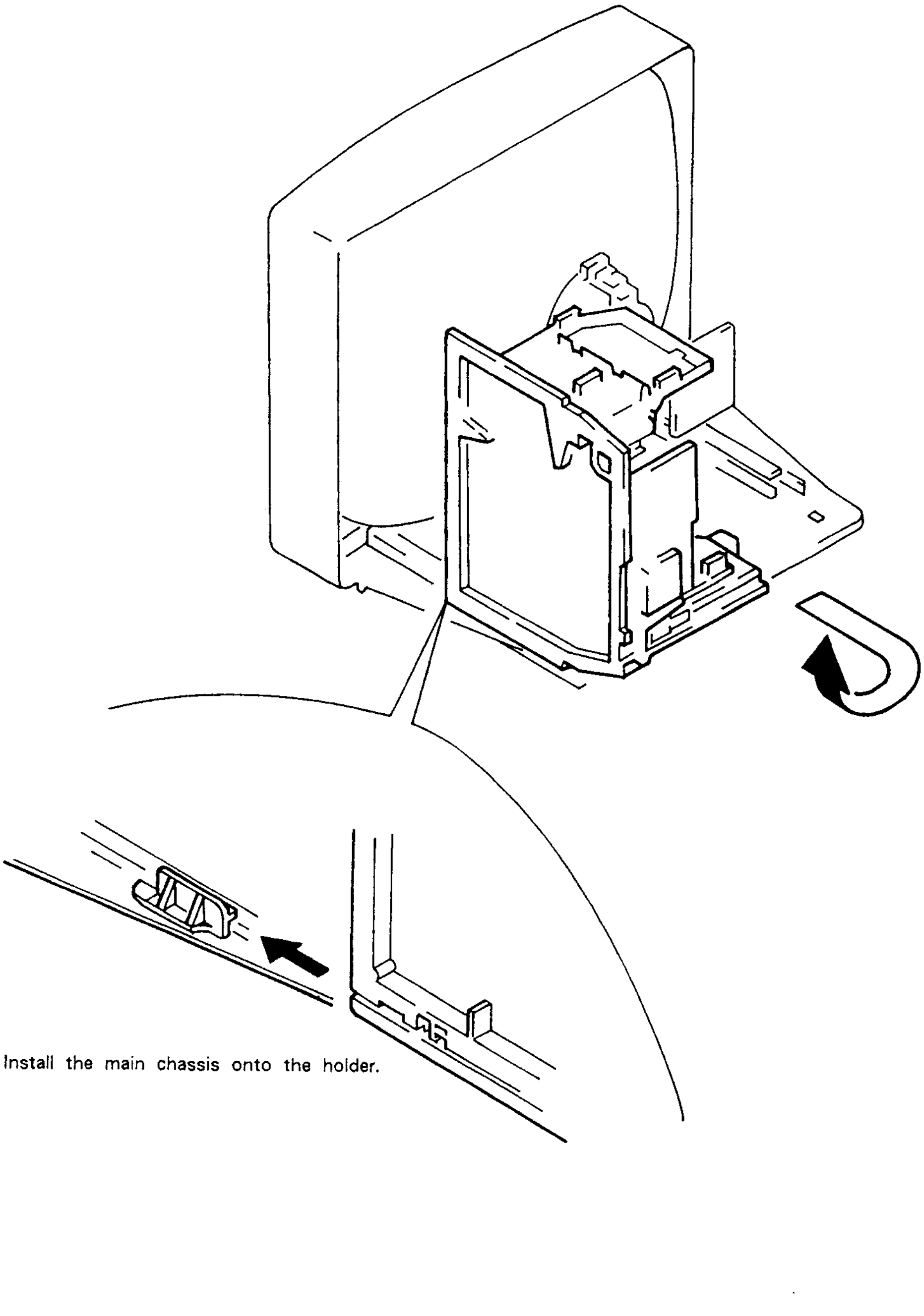

ⓒ
Anode button

② Using a thumb, pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



③ When one side of the rubber cap is separated from the anode button, the anode cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

2-6. SERVICE POSITION



*Install the main chassis onto the holder.

SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The control and switch below should be set as follows unless otherwise noted :

◑CONTRAST control ······· 80% (or Normal by Commander)
☼BRIGHTNESS control ····· 50%

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Color Bar/Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

3-1. BEAM LANDING

1. Input a raster signal with the pattern generator.
   CONTRAST } normal
   BRIGHTNESS }
2. Turn the raster signal of the pattern generator to red.
3. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides, evenly. (Fig. 3-1 to 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes red. (Fig. 3-1)
5. Switch over the raster signal to blue and green and confirm the condition.
6. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.
7. When landing at the corners is not right, adjust by using the magent. (Fig. 3-4)

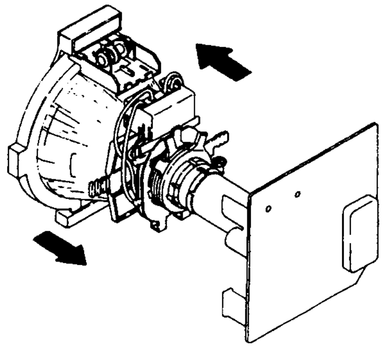


Fig. 3-1

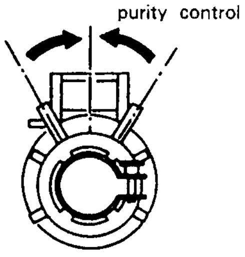

purity control

Fig. 3-2

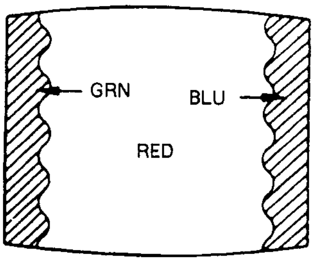


Fig. 3-3

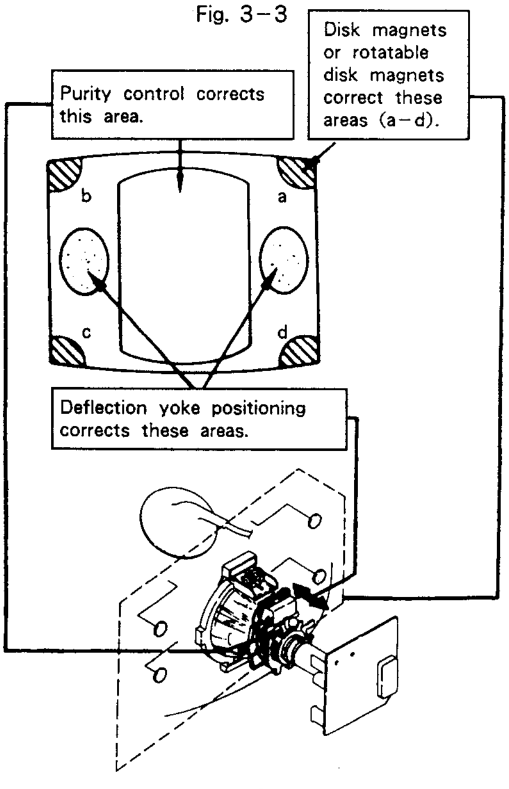

Purity control corrects this area.
Disk magnets or rotatable disk magnets correct these areas (a-d).
b
a
c
d
Deflection yoke positioning corrects these areas.

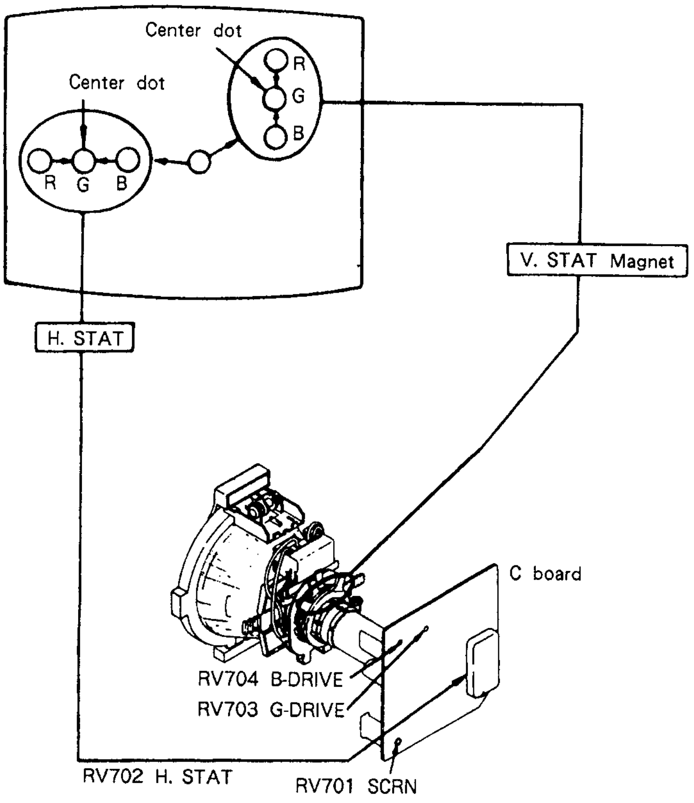
Fig. 3-4

3-2. CONVERGENCE

Preparation :

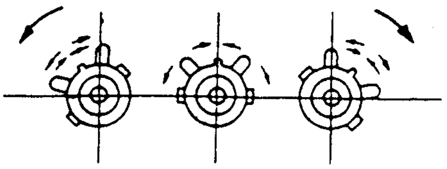
- Before starting, perform FOCUS, H. SIZE and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.

(1) Horizontal and Vertical Static Convergence


Center dot
Center dot
R
G
B
R G B
V. STAT Magnet
H. STAT
C board
RV704 B-DRIVE
RV703 G-DRIVE
RV702 H. STAT
RV701 SCRN

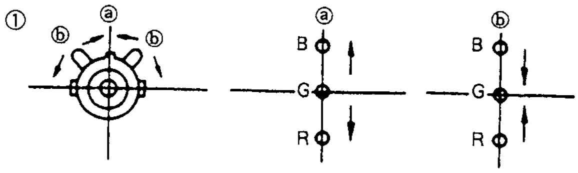
1. Adjust H. STAT VR to coincide red, green and blue dots on the center of screen. (Horizontal movement)
2. Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen. (Vertical movement)
3. If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform horizontal convergence adjustment using H. STAT VR and V. STAT magnet as shown below. (In this case, H. STAT VR and V. STAT magnet effect each other.)

- Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.

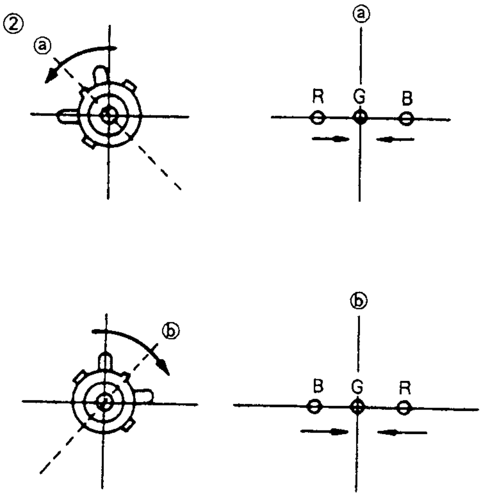


4. When the V. STAT magnet is moved in the direction of arrow ⓐ and ⓑ, red, green and blue dots move as shown below.

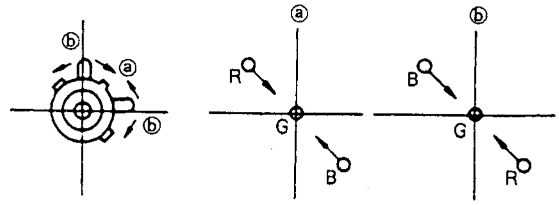
①



②



③

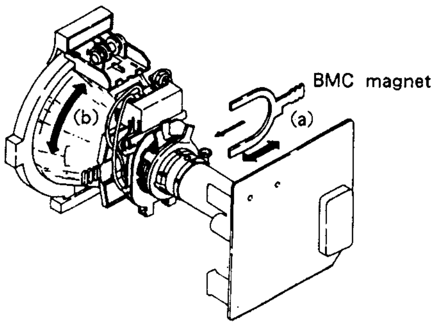


If the red and blue dots do not coincide with green dot, perform following steps.

Move BMC magnet (a) to correct insufficient H. static convergence.

Rotate BMC magnet (b) to correct insufficient V. static convergence.

In either case, repeat Beam Landing Adjustment.

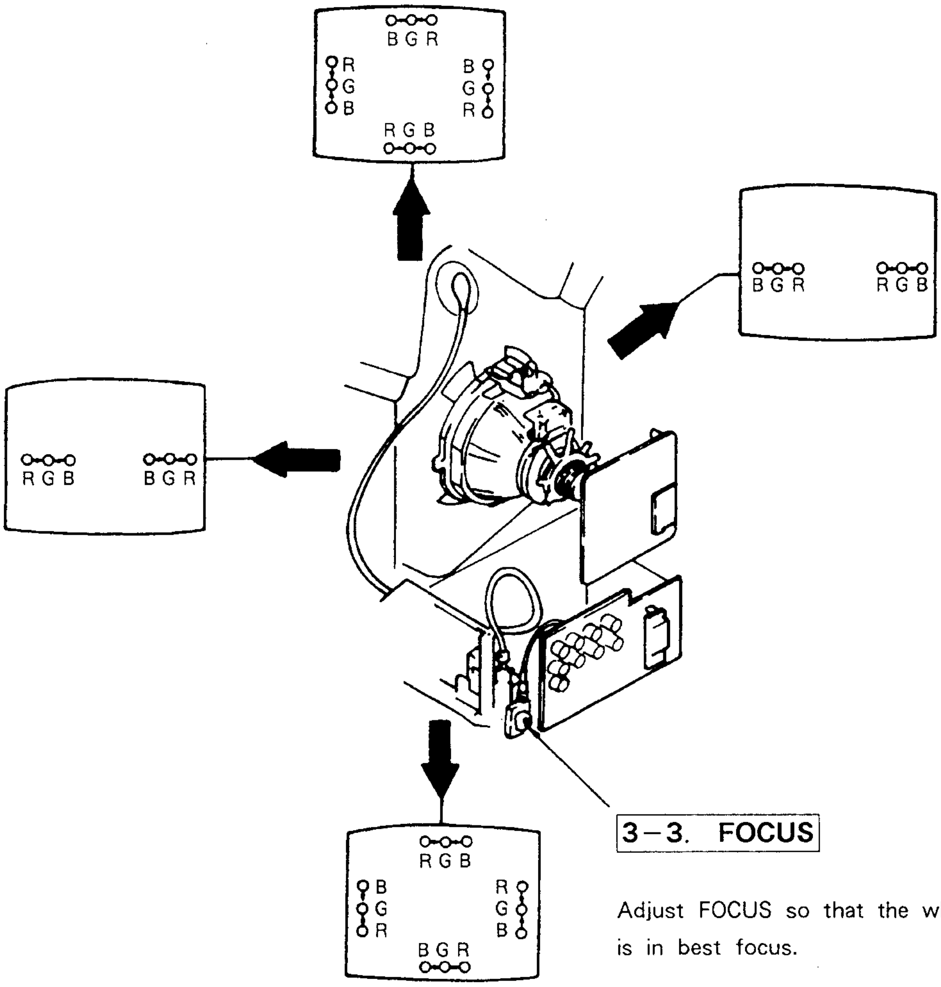

BMC magnet
(b)
(a)

(2) Dynamic Convergence Adjustment

Preparation :

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.

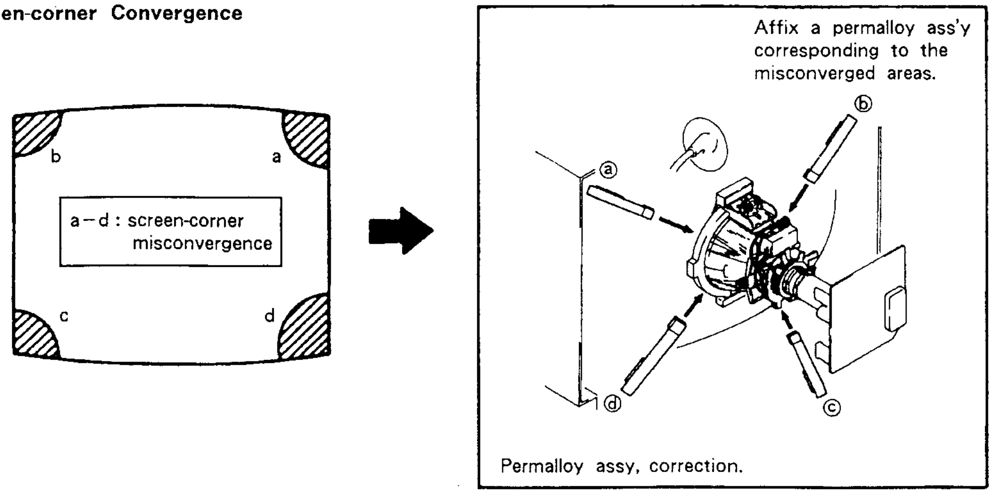
1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.


B G R
R G B
B G R
R G B
R G B
B G R
B G R
R G B
R G B
B G R
B G R
R G B
B G R
R G B
R G B
B G R

3–3. FOCUS

Adjust FOCUS so that the whole screen is in best focus.

(3) Screen-corner Convergence


b
a
a–d : screen-corner misconvergence
c
d
ⓐ
ⓑ
ⓒ
ⓓ

Affix a permalloy ass'y corresponding to the misconverged areas.

Permalloy assy, correction.

3−4. WHITE BALANCE

〔Screen (G2) Setting〕

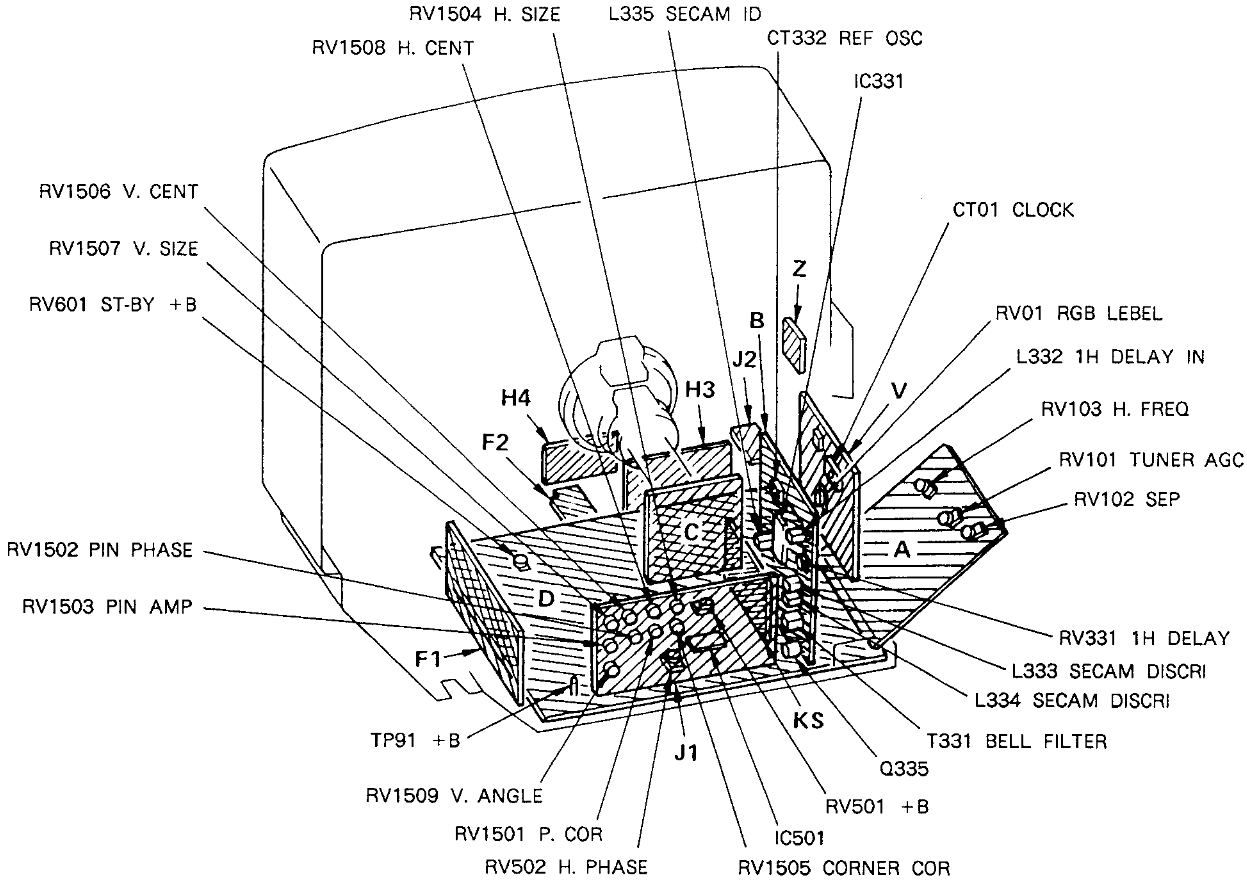
1. Input dot signals from the pattern generator.
2. Set the picture BRIGHTNESS control to the minimum level.
3. Apply 170 V dc to the cathodes of R, G, and B from an external power source.
4. While watching the picture, adjust the G2 volume (RV701) immediately before the fly-back line disappears.

〔White Balance Adjustment〕

1. Input all-white signals from the pattern generator.
2. Adjust the BRIGHTNESS and COLOR controls to the standard level.
3. Adjust the white balance using RV704 (B DRIVE) and RV703 (G DRIVE).

In the following adjustments, the CONTRAST COLOR and BRIGHTNESS controls are set to normal unless otherwise specified.

SECTION 4
CIRCUIT ADJUSTMENTS


RV1504 H. SIZE
L335 SECAM ID
RV1508 H. CENT
CT332 REF OSC
IC331
RV1506 V. CENT
RV1507 V. SIZE
RV601 ST-BY +B
CT01 CLOCK
Z
B
J2
RV01 RGB LEBEL
L332 1H DELAY IN
H4
H3
V
RV103 H. FREQ
F2
RV101 TUNER AGC
RV102 SEP
C
A
RV1502 PIN PHASE
D
RV1503 PIN AMP
F1
RV331 1H DELAY
L333 SECAM DISCRI
L334 SECAM DISCRI
KS
TP91 +B
J1
T331 BELL FILTER
Q335
RV1509 V. ANGLE
RV501 +B
RV1501 P. COR
IC501
RV502 H. PHASE
RV1505 CORNER COR

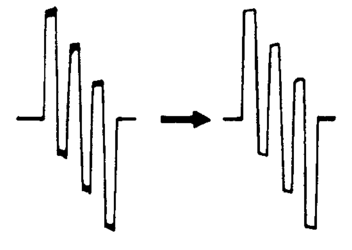
4–1. B BOARD ADJUSTMENTS

REF OSC Adjustment (CT332)

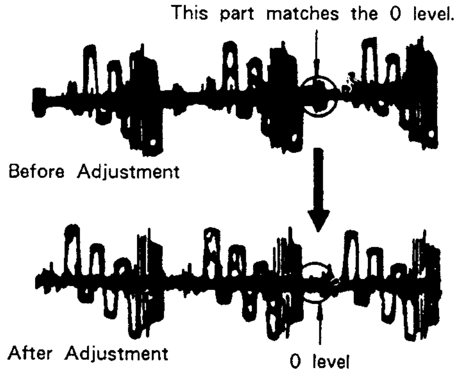
1. Input a PAL COLOR BAR pattern.
2. Short circuit between pin ⑰ of IC331 and ground.
3. Adjust CT332 to obtain color synchronization.
4. Remove the jumper wire from IC331.

1H DELAY LINE Adjustment (L332, RV331)

1. Input a PAL COLOR BAR pattern.
2. Connect the oscilloscope to pin ③ (B-Y) of IC331 and observe the waveform of the H block on the oscilloscope.
3. Adjust L332 to minimize the double waveform outline.


Before Adjustment
After Adjustment

4. Input a PAL TEST COLOR BAR pattern.
5. Rotate the RV331 VR and adjust till the ANTI-PAL part of the waveform matches the 0 level.


This part matches the 0 level.
Before Adjustment
After Adjustment
0 level

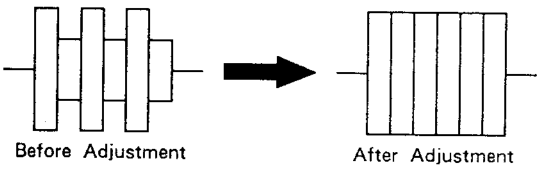
6. L332 and RV331 affect each other. so repeat till the conditions of both are met.

SECAM ID Adjustment (L335)

1. Input a SECAM COLOR BAR pattern.
2. Connect a Digital Multimeter at pin ㉑ of IC331.
3. Adjust L335 so that the indicator goes up to the maximum.

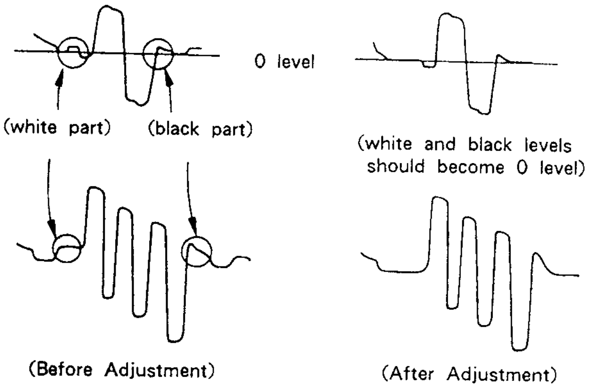
BELL FILTER Adjustment (T331)

1. Input a SECAM COLOR BAR pattern.
2. Connect an osilloscope to the Q335 emitter.
3. Adjust T331 so that the waveform becomes flat.



SECAM DISCRI Adjustment (L333, L334)

1. Input a SECAM COLOR BAR pattern.
2. Connect an osilloscope to pin ① of IC331.
3. Adjust L333 so that white and black parts of the waveform of pin ① becames 0 level.
4. Connect an oscilloscope to pin ③ of IC331.
5. Adjust L334 so that white and black parts of the waveform of pin ③ becomes 0 level.



4–2. D BOARD ADJUSTMENTS

+B Adjustment (RV501)

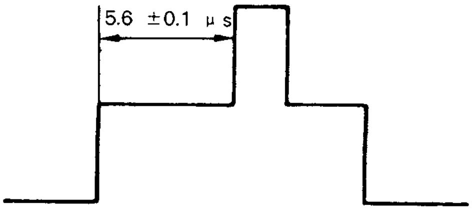
1. Connect a Digital Multimeter to TP91.
2. Adjust RV501 so that the voltage becomes 135 ±0.2 V.

ST-BY +B Adjustment (RV601)

1. Set up ⏻standby (Remote Commander) mode.
2. Connect the Digital Multimeter to TP91.
3. Adjust RV601 so that the voltage becomes 135 ±3 V.
4. Release the ⏻standby (Remote Commander) mode.

H. PHASE Adjustment (RV502)

1. Input a PAL TEST COLOR BAR pattern.
2. Set the CONTRAST and BRIGHTNESS controls to the standard positions.
3. Set RV1508 (H. CENT) to the mechanical center position.
4. Connect an osilloscope to pin ⑪ (SPC OUT) of IC501.
5. Rotate RV502 and adjust Block T to 5.6 ±0.1 μs.



4–3. A BOARD ADJUSTMENTS

TUNER AGC Adjustment (RV101)

1. Tune in an off-air signal.
2. Adjust RV101 so that snow-noise and cross-modulation just disappear from the picture.

STEREO SEPARATION Adjustment (RV102)

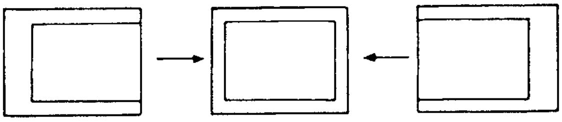
1. Input stereo signals. (L-CH 1 kHz, R-CH 400 Hz)
2. Check the stereo indicator.
3. Connect an oscilloscope to pin ① (L) of CNA11 through band pass filter of 1 kHz.
4. Adjust RV102 so that 1 kHz voltage goes down to the minimum.

H. FREQ Adjustment (RV103)

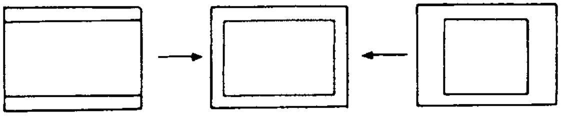
1. Input a PAL COLOR BAR pattern.
2. Short circuit between pin ⑫ of IC104 and ground.
3. Connect a frequency counter to pin ⑥ of IC104 through a probe of 10 : 1.
4. Adjust RV103 so that H. frequency becomes 15.625 ±50 Hz.

4-4. J1 BOARD ADJUSTMENTS

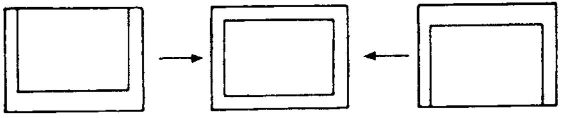
RV1508
H. CENT (HORIZONTAL CENTER)



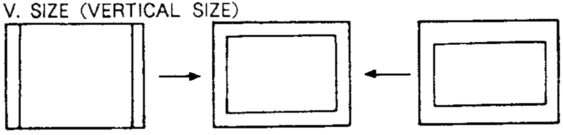
RV1504
H. SIZE (HORIZONTAL SIZE)



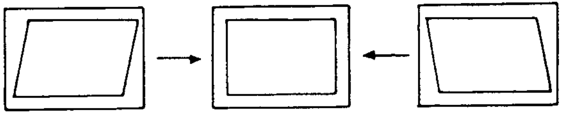
RV1506
V. CENT (VERTICAL CENTER)



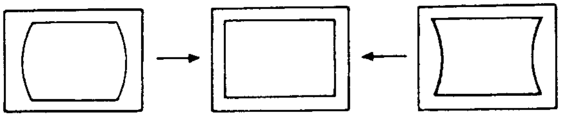
RV1507
V. SIZE (VERTICAL SIZE)



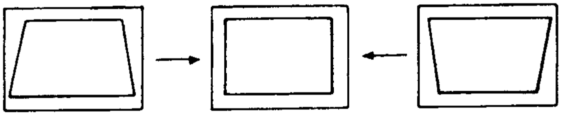
RV1509
V. ANGLE (VERTICAL ANGLE)



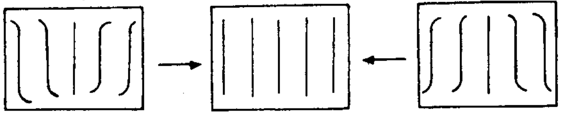
RV1503
PIN AMP (PINCUSHION AMPLIFIER)



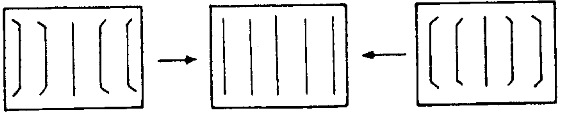
RV1502
PIN PHASE (PINCUSHION PHASE)



RV1501
P. COR (PINCUSHION CORRECT)



RV1505
CORNER. COR (CORNER CORRECT)



4-5. V BOARD ADJUSTMENTS

Clock Adjustment (CT01)

1. Disconnect the V-1 connector.
2. Set up the TELE TEXT mode.
3. Adjust CT01 to stop pictures from scrolling.

RGB Level Adjustment (RV01)

1. Set PICTURE to maximum.
2. Adjust RV01 till the RGB output becomes 0.65 V.

4-6. SUB ADJUSTMENTS

SUB BRIGHTNESS Adjustment

1. Receive and display a TEST COLOR BAR pattern.
2. Push →•← on the remote commander to invoke the normal state.
3. Turn off the power supply.
4. Turn on the power supply while pushing the SUB button (S1414). (SUB mode is invoked.)
5. Reduce the ◑CONTRAST to the minimum level.
6. Adjust the ☼BRIGHTNESS control until the 0 IRE of the gray scale becomes completely cut off, and the 20 IRE becomes barely luminous.
7. Push the AFT button. (SUB mode is cleared)

Where no TEST COLOR BAR pattern is available.

1. Display a COLOR BAR pattern.
2. Push →•← on the remote commander to invoke the normal state.
   Set the ❂COLOR to normal mode.

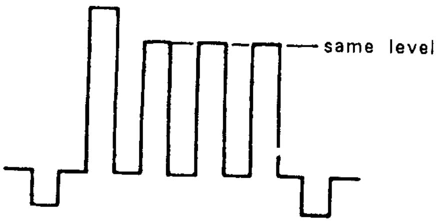
Steps 3 – 5 are the same as above.

6. 20 IRE is close to blue, so adjust the ☼BRIGHTNESS control till blue is faintly luminous.
7. Same as Step 7 above.
8. Push →•← on the remote commander to invoke the normal state.

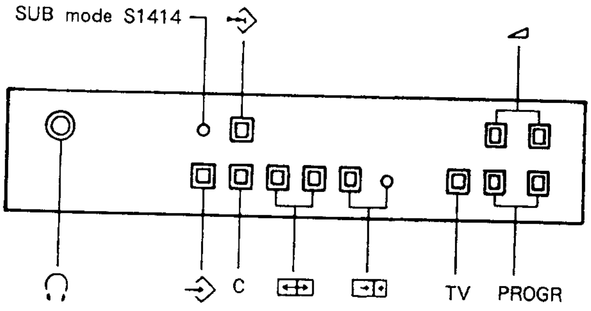
* When Step 4 is executed correctly, S (SUB mode) is displayed at the upper right of the display. As S is displayed only for 30 seconds, perform the adjustment within 30 seconds, or repeat from Step 4.

SUB COLOR Adjustment

1. Display a COLOR BAR pattern.
2. Push →•← on the remote commander to invoke the normal state.
3. Turn off the power supply.
4. Turn on the power supply while pushing the SUB button (S1414). (SUB mode is invoked.)
5. Adjust the COLOR control until the B out (pin ② of CNC72 connector on C board) waveform becomes as shown below.
6. Push the AFT button. (SUB mode is cleared.)

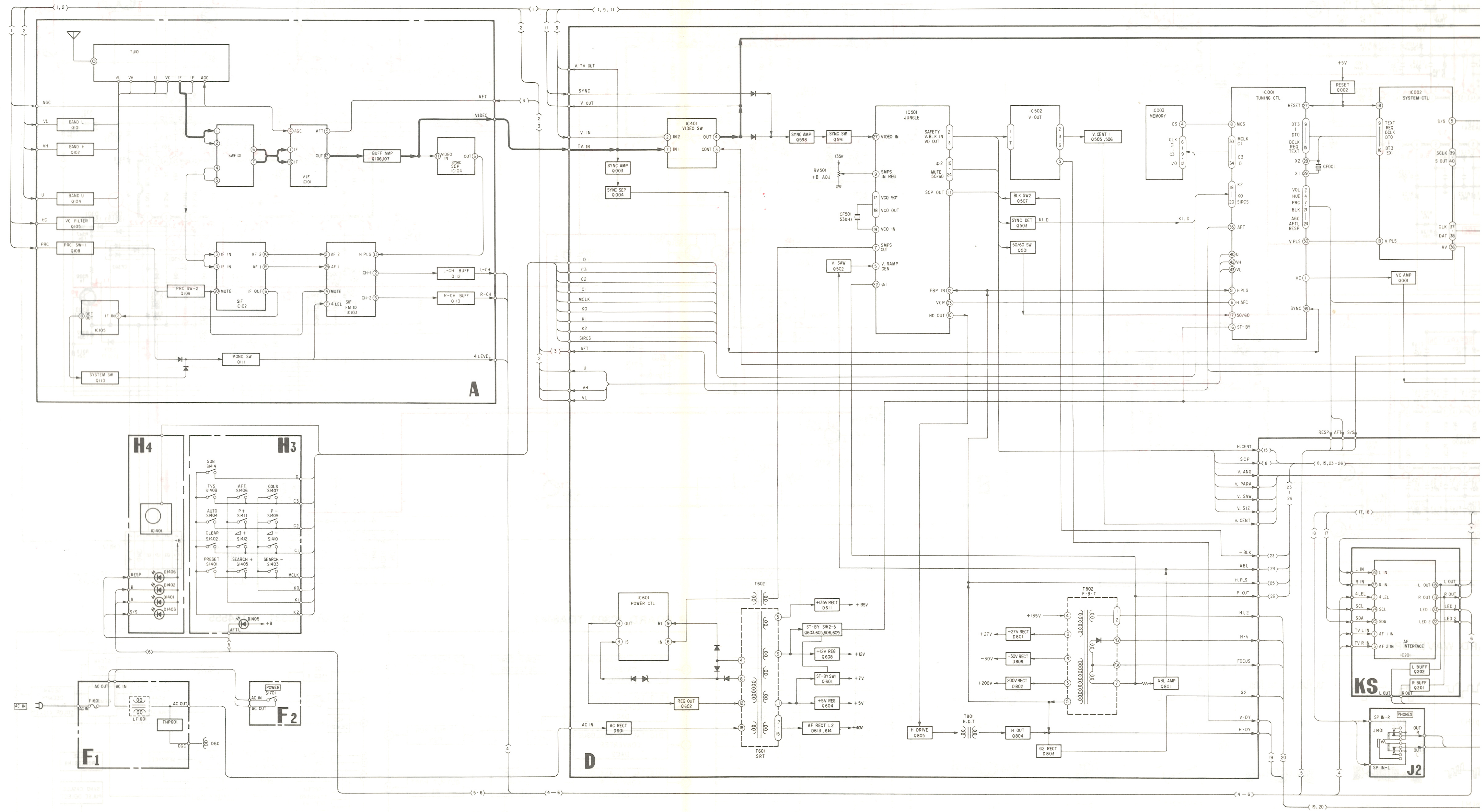


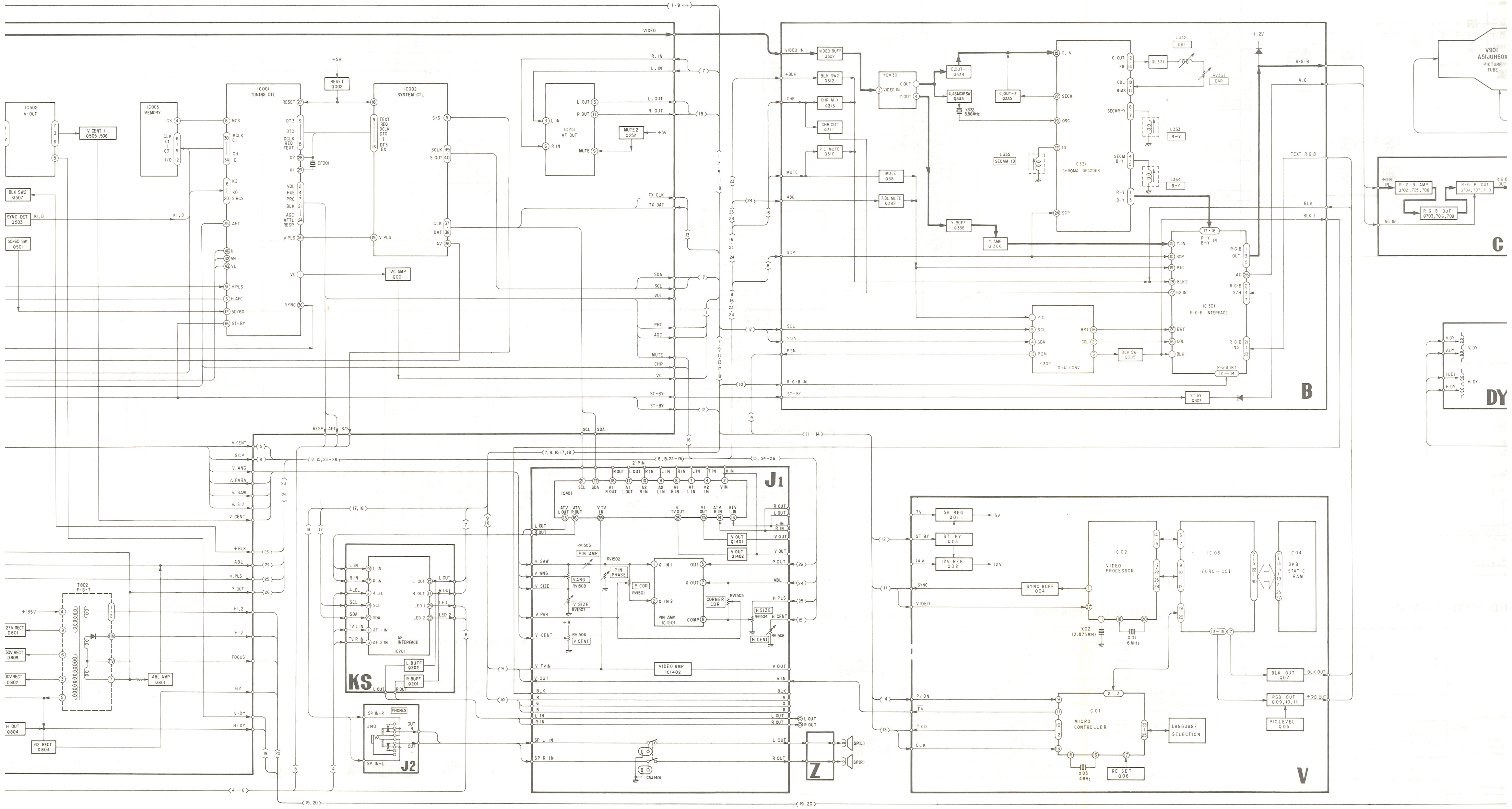
* When Step 4 is executed correctly, S (SUB mode) is displayed at the upper right of the display. As S (SUB mode) is displayed only for 30 seconds, perform the adjustment with 30 seconds, or repeat from Step 4.

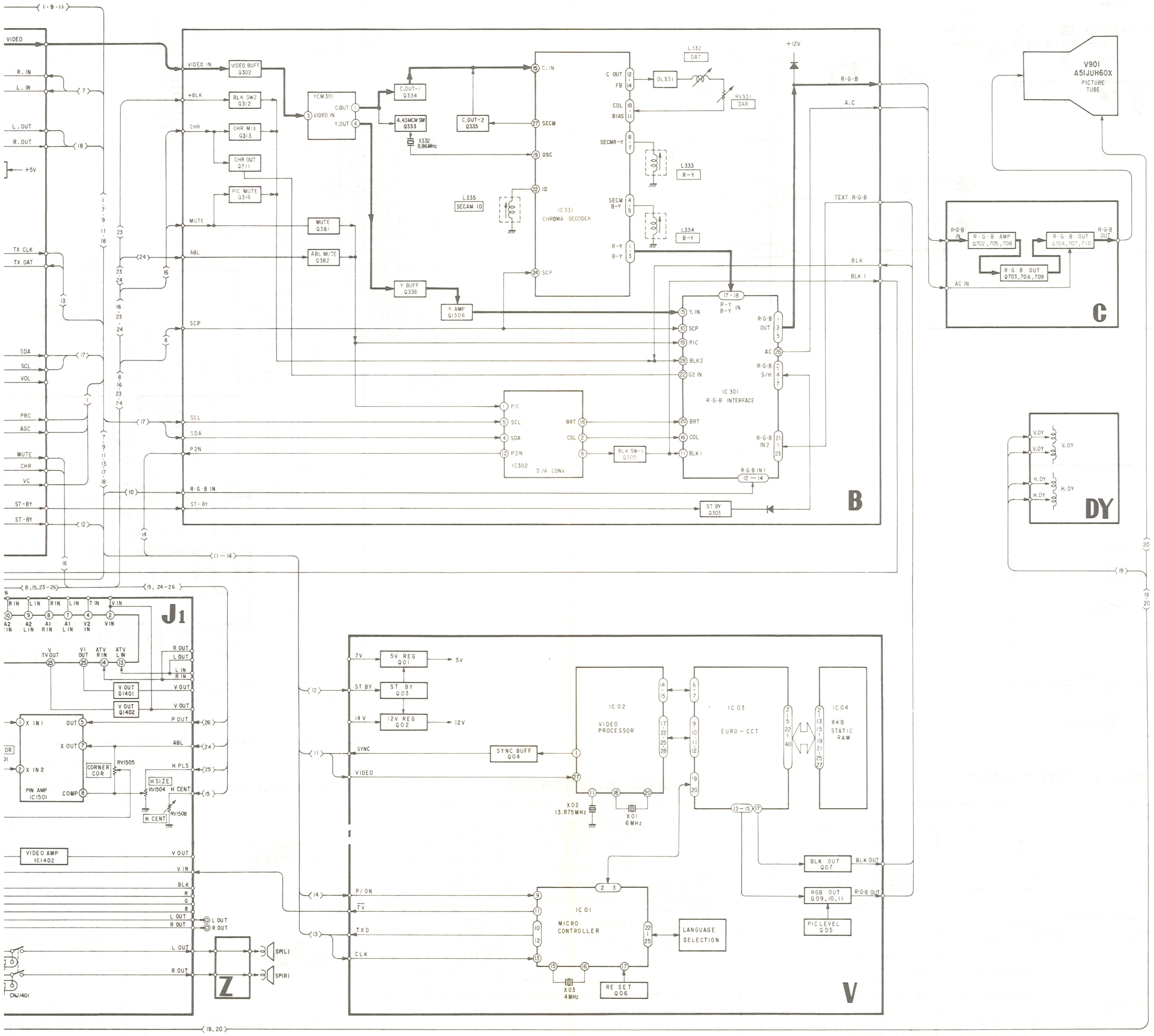


SECTION 5
DIAGRAMS

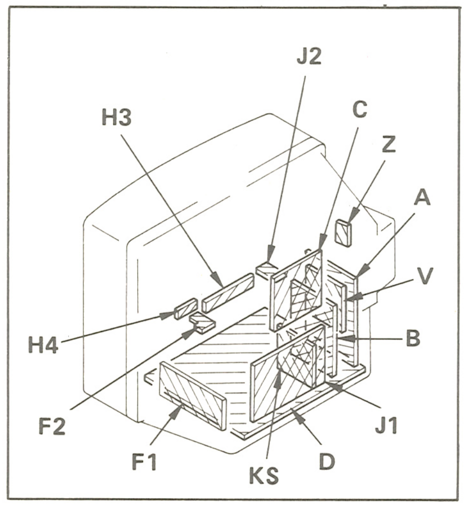
5-1. BLOCK DIAGRAM


A
D
H4
H3
F1
F2
KS
J2
TU101
SWF101
VIF IC101
BUFF AMP Q106,107
SYNC SEP IC104
BAND L Q101
BAND H Q102
BAND U Q104
VC FILTER Q105
PRC SW-1 Q108
PRC SW-2 Q109
DET OUT IC105
SYSTEM SW Q110
SIF IC102
SIF FM ID IC103
L-CH BUFF Q112
R-CH BUFF Q113
MONO SW Q111
IC401 VIDEO SW
SYNC AMP Q003
SYNC SEP Q004
SYNC AMP Q598
SYNC SW Q591
IC501 JUNGLE
RV501 +B ADJ
CF501 5.3MHz
V. SAW Q502
IC502 V-OUT
V. CENT 1 Q505,506
BLK SW2 Q507
SYNC DET Q503
50/60 SW Q501
IC003 MEMORY
IC001 TUNING CTL
RESET Q002
IC002 SYSTEM CTL
CF001
VC AMP Q001
IC601 POWER CTL
REG OUT Q602
AC RECT D601
T602
T601 SRT
+135V RECT D611
ST-BY SW2-5 Q603,605,606,609
+12V REG Q608
ST-BY SW1 Q601
+5V REG Q604
AF RECT 1,2 D613,614
H DRIVE Q805
T801 H.D.T
H OUT Q804
G2 RECT D803
+27V RECT D801
-30V RECT D809
200V RECT D802
T802 F.B.T
ABL AMP Q801
AF INTERFACE IC201
L BUFF Q202
R BUFF Q201
J1401
PHONES
IC1401
SUB S1414
TVS S1408
AFT S1406
COLS S1407
AUTO S1404
P+ S1411
P- S1409
CLEAR S1402
S1412
S1410
PRESET S1401
SEARCH + S1405
SEARCH - S1403
D1406
D1402
D1401
D1403
D1405
AC IN
F1601
LF1601
THP601
POWER S1701
DGC


IC502 V-OUT
V.CENT 1 Q505,506
BLK SW2 Q507
SYNC DET Q503
50/60 SW Q501
IC003 MEMORY
IC001 TUNING CTL
RESET Q002
+5V
IC002 SYSTEM CTL
CF001
VC AMP Q001
IC251 AF OUT
MUTE2 Q252
VIDEO
R.IN
L.IN
L.OUT
R.OUT
TX CLK
TX DAT
SDA
SCL
VOL
PRC
AGC
MUTE
CHR
VC
ST-BY
RESP
AFT
S/S
B
VIDEO BUFF Q302
BLK SW2 Q312
CHR MIX Q313
CHR OUT Q311
PIC MUTE Q316
YCM301
C.OUT-1 Q334
4.43MCW SW Q333
X332 8.86MHz
C.OUT-2 Q335
MUTE Q381
ABL MUTE Q382
Y BUFF Q336
Y.AMP Q1306
IC331 CHROMA DECODER
L335 SECAM ID
DL331
L332 DAT
RV331 DAR
L333 R-Y
L334 B-Y
IC301 R-G-B INTERFACE
IC302 D/A CONV
BLK SW Q305
ST BY Q303
+12V
R-G-B
A.C
TEXT R-G-B
V901 A51JUH60X PICTURE TUBE
R-G-B AMP Q702,705,708
R-G-B OUT Q704,707,710
R-G-B OUT Q703,706,709
C
V.DY
H.DY
DY
H.CENT
SCP
V.ANG
V.PARA
V.SAW
V.SIZ
V.CENT
+BLK
ABL
H.PLS
P OUT
H1,2
H-V
FOCUS
G2
V-DY
H-DY
+135V
T802 F-B-T
27V RECT D801
30V RECT D809
30V RECT D802
ABL AMP Q801
H OUT Q804
G2 RECT D803
J1
21PIN
IC401
V OUT Q1401
V OUT Q1402
PIN AMP RV1503
RV1502
PIN PHASE
V.ANG RV1509
P.COR RV1501
V SIZE RV1507
PIN AMP IC1501
CORNER COR
RV1505
H SIZE RV1504
H CENT RV1508
V CENT RV1506
VIDEO AMP IC1402
KS
IC201 AF INTERFACE
L BUFF Q202
R BUFF Q201
J2
PHONES
J1401
SP IN-R
SP IN-L
L OUT
R OUT
Z
SP(L)
SP(R)
CNJ1401
V
5V REG Q01
ST BY Q03
12V REG Q02
7V
14V
5V
12V
SYNC BUFF Q04
IC02 VIDEO PROCESSOR
IC03 EURO-CCT
IC04 8K8 STATIC RAM
X02 13.875MHz
X01 6MHz
BLK OUT Q07
RGB OUT Q09,10,11
PIC LEVEL Q05
IC01 MICRO CONTROLLER
LANGUAGE SELECTION
X03 4MHz
RESET Q06
P/ON
TV
TXD
CLK


VIDEO
R. IN
L. IN
L. OUT
R. OUT
+5V
TX CLK
TX DAT
SDA
SCL
VOL
PRC
AGC
MUTE
CHR
VC
ST-BY
ST-BY
1-9-11
7
18
23
24
16
8
13
17
10
12
14
11—14
8,15,23-26
15, 24-26
VIDEO IN
VIDEO BUFF Q302
+BLK
BLK SW2 Q312
CHR
CHR MIX Q313
CHR OUT Q311
PIC MUTE Q316
MUTE
MUTE Q381
ABL
ABL MUTE Q382
SCP
SCL
SDA
P2N
R-G-B IN
ST-BY
YCM301
VIDEO IN
C.OUT
Y.OUT
C.OUT-1 Q334
4.43MCW SW Q333
X332 8.86MHz
C.OUT-2 Q335
Y BUFF Q336
Y. AMP Q1306
C. IN
SECM
OSC
ID
SCP
L335 SECAM ID
IC331 CHROMA DECODER
C OUT
FB
COL
BIAS
SECMR-Y
SECM B-Y
R-Y
B-Y
DL331
L332 DAT
RV331 DAR
L333 R-Y
L334 B-Y
+12V
R-G-B
A.C
TEXT R-G-B
BLK
BLK I
17·18
R-Y B-Y IN
Y. IN
SCP
PIC
BLK2
G2. IN
BRT
COL
BLK I
R-G-B OUT
AC
R-G-B S/H
IC301 R-G-B INTERFACE
R-G-B IN2
R-G-B IN1
12 — 14
PIC
SCL
SDA
P2N
BRT
COL
IC302 D/A CONV
BLK SW-1 Q305
ST BY Q303
B
V901 A51JUH60X PICTURE TUBE
R-G-B IN
R-G-B AMP Q702,705,708
R-G-B OUT Q704,707,710
R-G-B OUT Q703,706,709
R-G-B OUT
AC IN
C
V.DY
H.DY
DY
19
20
J1
R IN
L IN
T IN
V IN
A2 L IN
A1 R IN
A1 L IN
V2 IN
V IN
V TV OUT
V1 OUT
ATV R IN
ATV L IN
R OUT
L OUT
V OUT
L IN
R IN
V OUT Q1401
V OUT Q1402
P OUT
ABL
H PLS
H CENT
X IN1
X IN2
OUT
X OUT
COMP
PIN AMP IC1501
CORNER COR
RV1505
H SIZE RV1504
H CENT RV1506
VIDEO AMP IC1402
V OUT
V IN
BLK
R
G
B
L OUT
R OUT
SP(L)
SP(R)
CNJ1401
Z
26
25
19, 20
7V
5V REG Q01
5V
ST BY
ST BY Q03
14 V
12V REG Q02
12V
SYNC
SYNC BUFF Q04
VIDEO
IC02 VIDEO PROCESSOR
X02 13.875MHz
X01 6MHz
IC03 EURO-CCT
IC04 8KB STATIC RAM
BLK OUT Q07
RGB OUT Q09,10,11
PIC LEVEL Q05
BLK OUT
R-G-B OUT
P/ON
TV
TXD
CLK
IC01 MICRO CONTROLLER
LANGUAGE SELECTION
X03 4MHz
RE SET Q06
V

5-2. CIRCUIT BOARDS LOCATION


J2
H3
C
Z
A
V
B
H4
F2
J1
F1
KS
D

Note :

- All capacitors are in μF unless otherwise noted.
  pF : μμF 50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power is as follows.

  Pitch : 5 mm
  Rating electrical power 1／4W

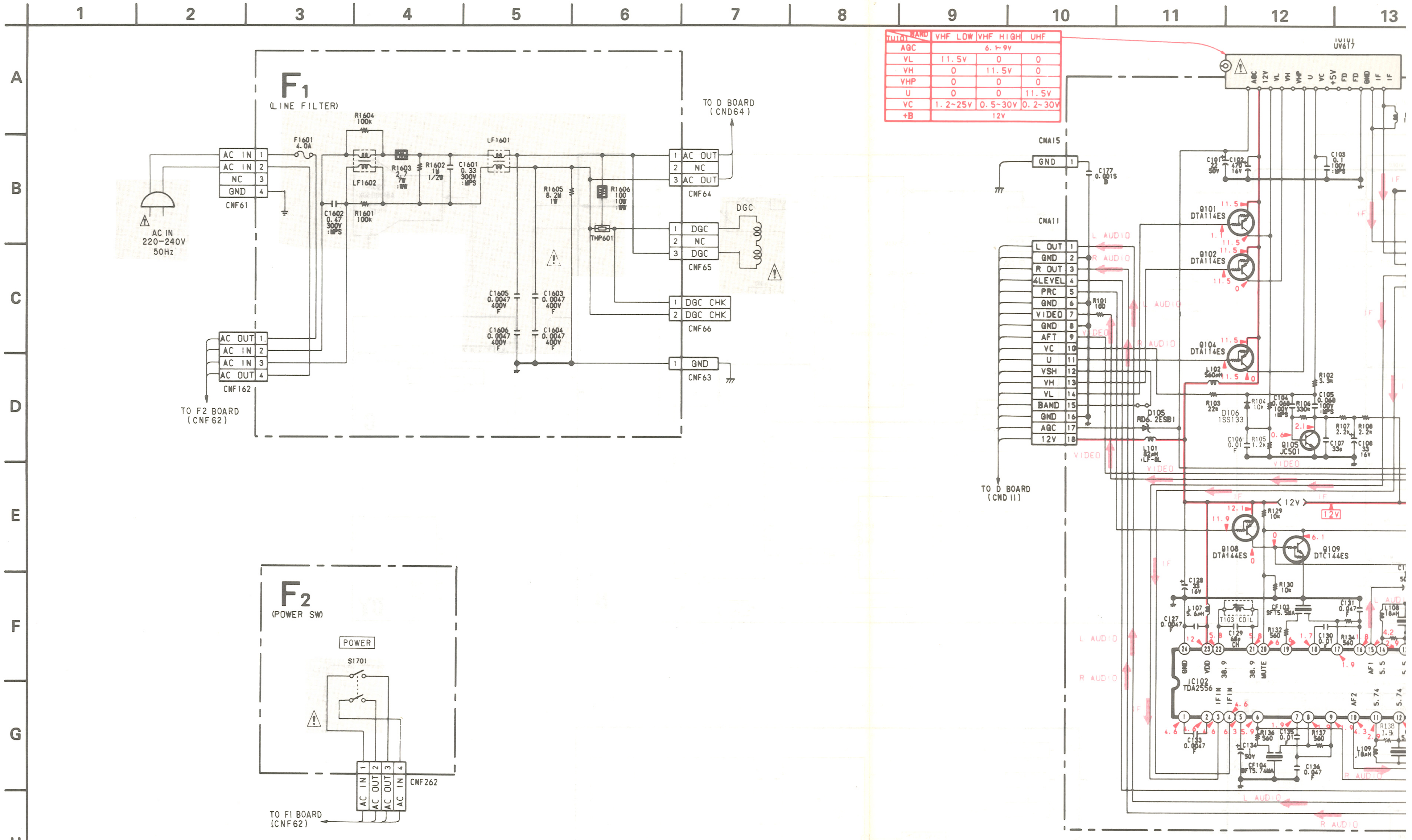
- All resistors are in ohms.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- △ : internal component.
- ▭ : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10 MΩ digital multimeter.
- Readings are taken with a PAL color-bar signal input.
- ▭ : adjustment for repair.
- Voltage variations may be noted due to normal production tolerance.
- ━━ : B+ bus.
- ━ ━ ━ : B− bus.
- ░░ : signal pass.

Reference information

RESISTOR : RN METAL FILM
: RC SOLID
: FPRD NONFLAMMABLE CARBON
: FUSE NONFLAMMABLE FUSIBLE
: RS NONFLAMMABLE WIREWOUND
: RB NONFLAMMABLE CEMENT
COIL : LF-8L MICRO INDUCTOIR
CAPACITOR : TA TANTALUM
: PS STYROL
: PP POLYPROPYLENE
: PT MYLAR
: MPS METALIZED POLYESTER
: MPP METALIZED PORYPROPYLENE
: ALB BIPOLAR
: ALT HIGH TEMPERATURE
: ALR HIGH RIPPLE

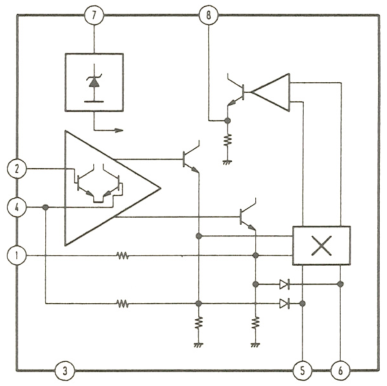
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

5-3. SCHEMATIC DIAGRAM

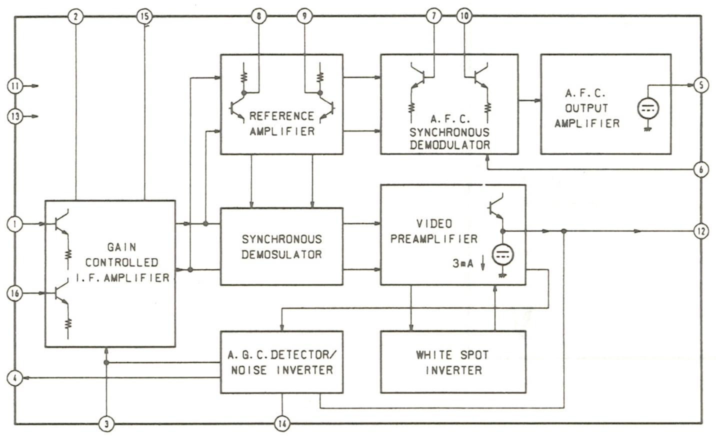

1
2
3
4
5
6
7
8
9
10
11
12
13
A
B
C
D
E
F
G
H
F1
(LINE FILTER)
AC IN
220–240V
50Hz
F1601
4.0A
R1604
100k
LF1601
LF1602
R1603
2.7
7W
R1602
1M
1/2W
C1601
0.33
300V
C1602
0.47
300V
R1601
100k
R1605
8.2M
R1606
100
10W
THP601
C1605
0.0047
400V
C1603
0.0047
400V
C1606
0.0047
400V
C1604
0.0047
400V
AC IN
NC
GND
CNF61
AC OUT
CNF162
TO F2 BOARD
(CNF62)
TO D BOARD
(CND64)
CNF64
DGC
CNF65
DGC CHK
CNF66
GND
CNF63
F2
(POWER SW)
POWER
S1701
CNF262
TO F1 BOARD
(CNF62)
CNA15
CNA11
L OUT
R OUT
LEVEL
PRC
VIDEO
AFT
VC
U
VSH
VH
VL
BAND
AGC
12V
TO D BOARD
(CND 11)
TU101
UV617
Q101
DTA114ES
Q102
DTA114ES
Q104
DTA114ES
Q105
JC501
Q108
DTA144ES
Q109
DTC144ES
D105
RD6.2ESB1
D106
1SS133
IC102
TDA2556
L AUDIO
R AUDIO
VIDEO
IF
12V

TU101 \ BAND	VHF LOW	VHF HIGH	UHF
AGC	6.1~9V		
VL	11.5V	0	0
VH	0	11.5V	0
VHP	0	0	0
U	0	0	11.5V
VC	1.2~25V	0.5~30V	0.2~30V
+B	12V		

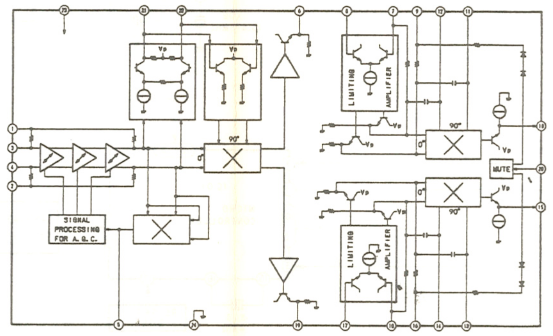
A BOARD IC105 TBA129



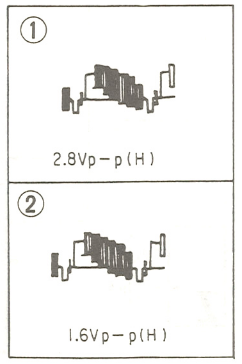
A BOARD IC101 TDA3541


REFERENCE AMPLIFIER
A.F.C. SYNCHRONOUS DEMODULATOR
A.F.C. OUTPUT AMPLIFIER
GAIN CONTROLLED I.F. AMPLIFIER
SYNCHRONOUS DEMODULATOR
VIDEO PREAMPLIFIER
3mA
A.G.C. DETECTOR/ NOISE INVERTER
WHITE SPOT INVERTER

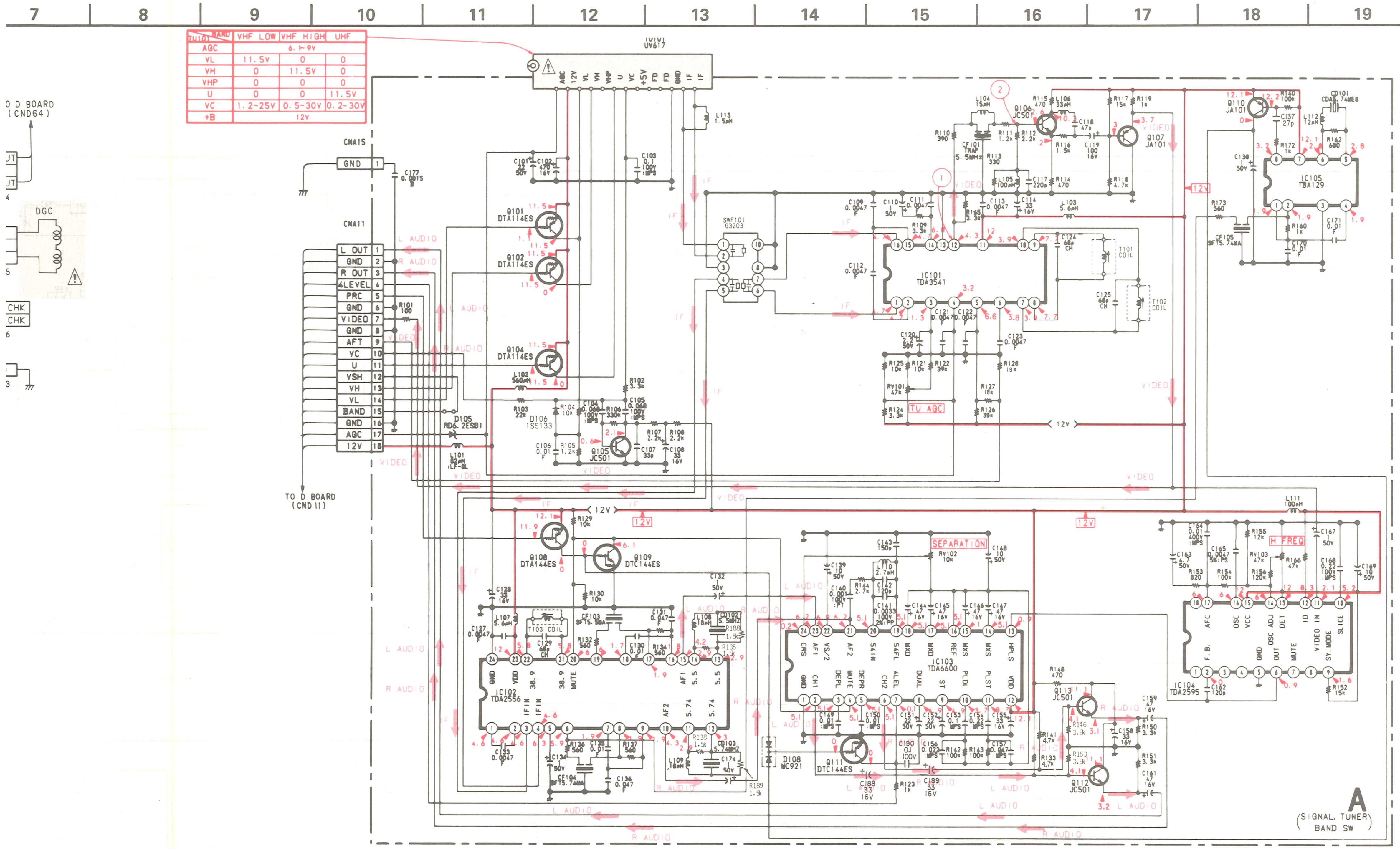
A BOARD IC102 TDA2556


SIGNAL PROCESSING FOR A.G.C.
LIMITING
MUTE

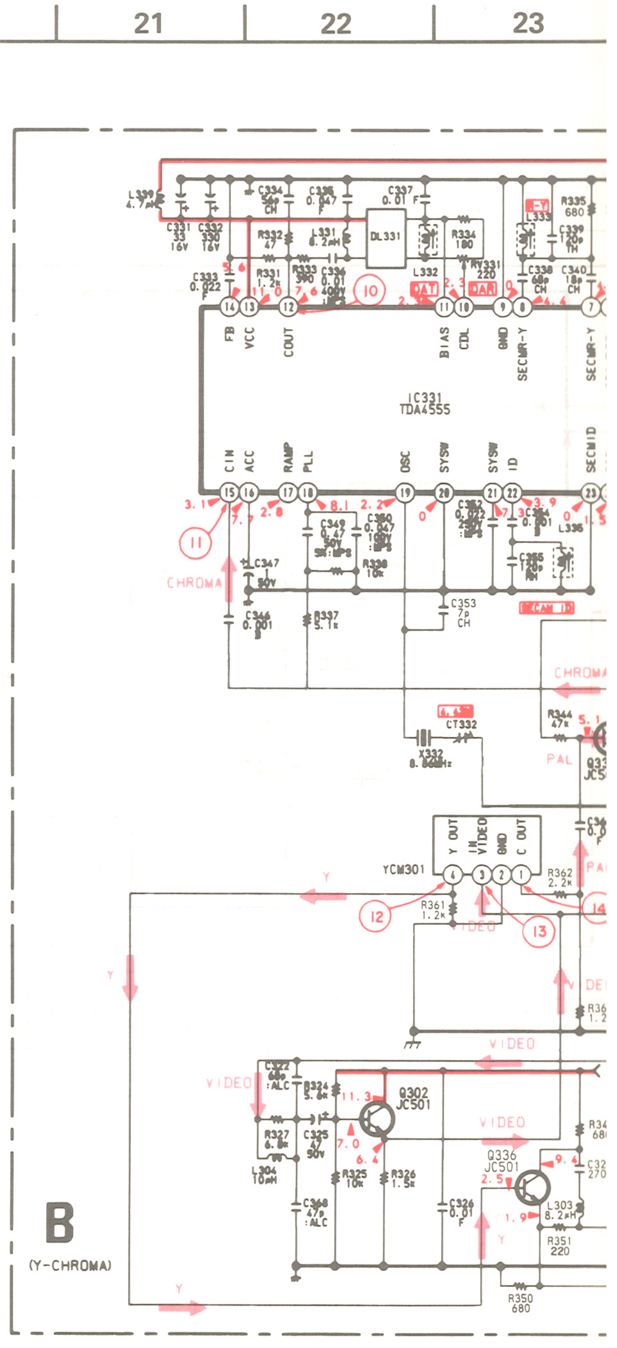
● A BOARD WAVEFORM



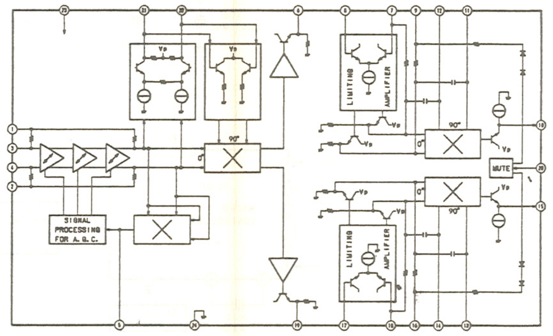
A	IC 101	TDA3541
	102	TDA2556
	103	TDA6600
	104	TDA2595
	105	TBA129
	Q 101	DTA114ES
	102	DTA114ES
	103	DTA114ES
	104	DTA114ES
	105	JC501
	106	JC501
	107	JA101
	108	DTA144ES
	109	DTC144ES
	110	JA101
	111	DTC144ES
	112	JC501
	113	JC501
	D 105	RD5.6ESB2
	106	1SS133
	108	MC921


7
8
9
10
11
12
13
14
15
16
17
18
19
TU101 UV617
D BOARD (CND64)
DGC
CHK
CHK
CNA15
GND 1
CNA11
L OUT 1
GND 2
R OUT 3
LEVEL 4
PRC 5
GND 6
VIDEO 7
GND 8
AFT 9
VC 10
U 11
VSH 12
VH 13
VL 14
BAND 15
GND 16
AGC 17
12V 18
TO D BOARD (CND 11)
Q101 DTA114ES
Q102 DTA114ES
Q104 DTA114ES
Q105 JC501
Q106 JC501
Q107 JA101
Q108 DTA144ES
Q109 DTC144ES
Q110 JA101
Q111 DTC144ES
Q112 JC501
Q113 JC501
D105 RD6.2ESB1
D106 1SS133
D108 MC921
SWF101 G3203
IC101 TDA3541
IC102 TDA2556
IC103 TDA6600
IC104 TDA2595
IC105 TBA129
TU AGC
SEPARATION
H FREQ
12V
L AUDIO
R AUDIO
VIDEO
IF
A
(SIGNAL, TUNER BAND SW)

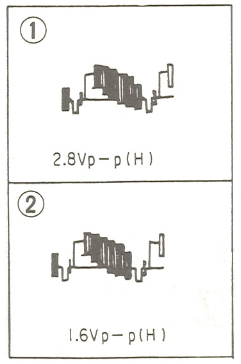
TU101 BAND	VHF LOW	VHF HIGH	UHF
AGC	6.1~9V		
VL	11.5V	0	0
VH	0	11.5V	0
VHP	0	0	0
U	0	0	11.5V
VC	1.2~25V	0.5~30V	0.2~30V
+B	12V		


20
21
22
23
IC331 TDA4555
DL331
CT332
X332 8.86MHz
YCM301
Q302 JC501
Q336 JC501
CHROMA
VIDEO
PAL
B
(Y-CHROMA)

A BOARD IC102 TDA2556

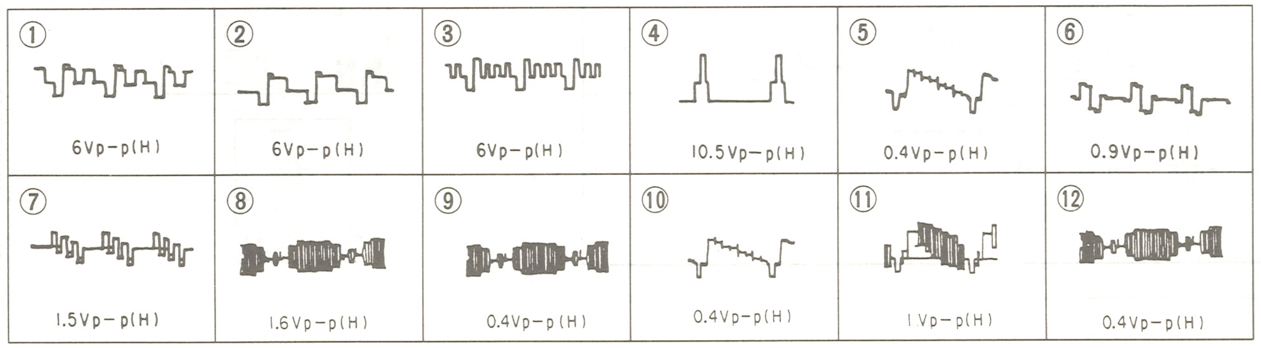

SIGNAL PROCESSING FOR A.G.C.
LIMITING AMPLIFIER
MUTE
90°

● A BOARD WAVEFORM

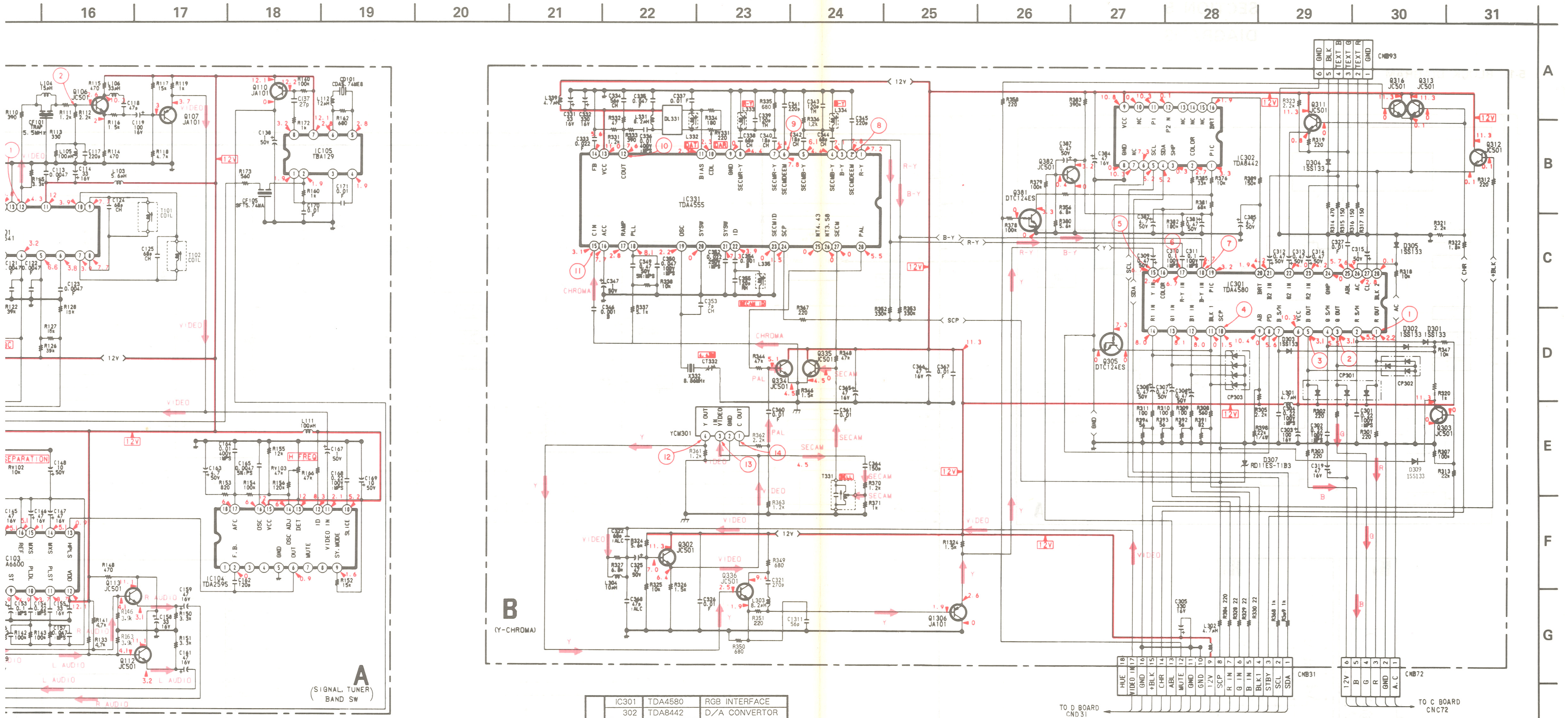


A	IC 101	TDA3541	VIF
	102	TDA2556	SIF
	103	TDA6600	SIF FM ID
	104	TDA2595	SYNC SEP
	105	TBA129	SIF
	Q 101	DTA114ES	BAND-L
	102	DTA114ES	BAND-H
	103	DTA114ES	BAND SH
	104	DTA114ES	BAND U
	105	JC501	VC FILTER
	106	JC501	BUFF AMP
	107	JA101	BUFF AMP
	108	DTA144ES	PRC SW
	109	DTC144ES	PRC SW
	110	JA101	SYSTEM SW
	111	DTC144ES	MONO SW
	112	JC501	AF BUFF L
	113	JC501	AF BUFF R
	D 105	RD5.6ESB2	SEARCH AGC
	106	1SS133	VC STOP
	108	MC921	SYSTEM SW

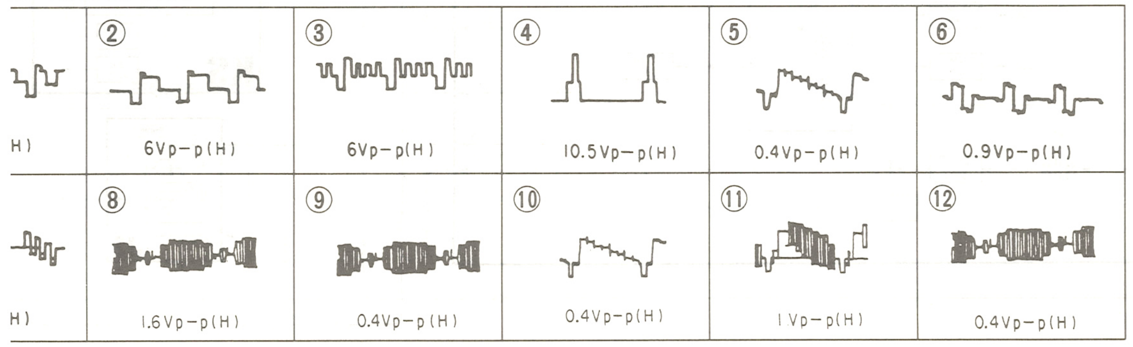
● B BOARD WAVEFORM



B	IC301	TDA4580	RGB INTERFACE
	302	TDA8442	D/A CONVERTOR
	331	TDA4555	CHROMA DECODEF
	Q302	JC501	VIDEO BUFF
	303	JC501	ST BY SW
	305	DTC124ES	BLK SW
	311	JC501	CHR OUT
	312	JC501	BLK SW
	313	JC501	CHR MIX
	316	JC501	PIC MUTE
	334	JC501	CHROMA OUT
	335	JC501	CHROMA OUT
	336	JC501	VIDEO AMP
	381	DTC124ES	MUTE
	382	JC501	ABL MUTE
	1306	JA101	Y BUFF
	D301	1SS133	ST BY MUTE-1
	302	1SS133	ST BY MUTE-2
	303	1SS133	ST BY MUTE-3
	304	1SS133	BLK SW
	305	1SS133	PROTECT
	307	RD11ES-B13	PROTECT
	309	1SS133	SPOT PROTECT

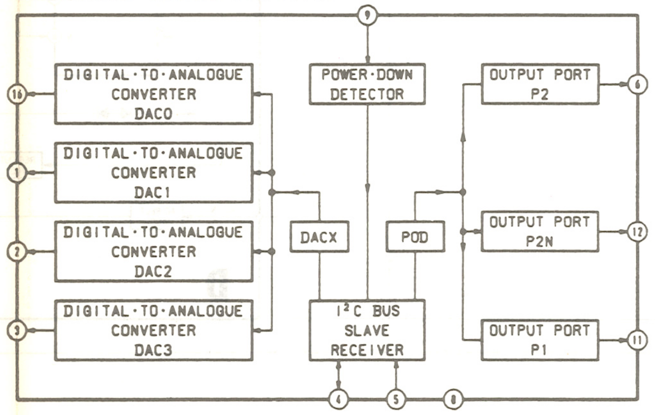

16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
A
B
C
D
E
F
G
IC105 TBA129
IC104 TDA2595
IC331 TDA4555
IC302 TDA8442
IC301 TDA4580
YCM301
CNB93
CNB31
CNB72
TO D BOARD CND31
TO C BOARD CNC72
12V
VIDEO
CHROMA
SECAM
PAL
L AUDIO
R AUDIO
SEPARATION
H FREQ
A
(SIGNAL, TUNER BAND SW)
B
(Y-CHROMA)

D WAVEFORM

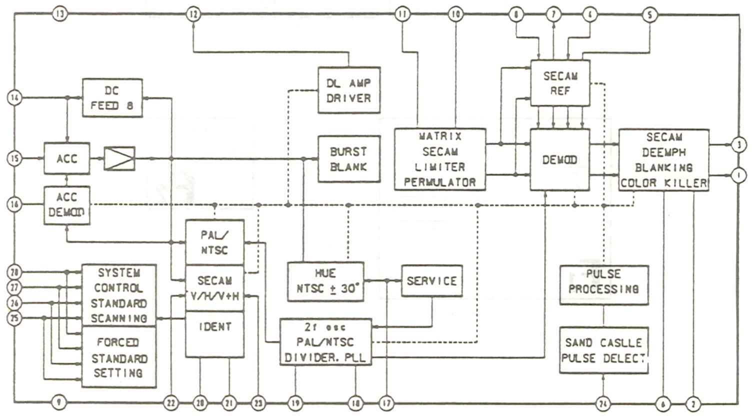


B	IC301	TDA4580	RGB INTERFACE
	302	TDA8442	D/A CONVERTOR
	331	TDA4555	CHROMA DECODER
	Q302	JC501	VIDEO BUFF
	303	JC501	ST BY SW
	305	DTC124ES	BLK SW
	311	JC501	CHR OUT
	312	JC501	BLK SW
	313	JC501	CHR MIX
	316	JC501	PIC MUTE
	334	JC501	CHROMA OUT
	335	JC501	CHROMA OUT
	336	JC501	VIDEO AMP
	381	DTC124ES	MUTE
	382	JC501	ABL MUTE
	1306	JA101	Y BUFF
	D301	1SS133	ST BY MUTE-1
	302	1SS133	ST BY MUTE-2
	303	1SS133	ST BY MUTE-3
	304	1SS133	BLK SW
	305	1SS133	PROTECT
	307	RD11ES-B13	PROTECT
	309	1SS133	SPOT PROTECT

B BOARD IC302 TDA8442

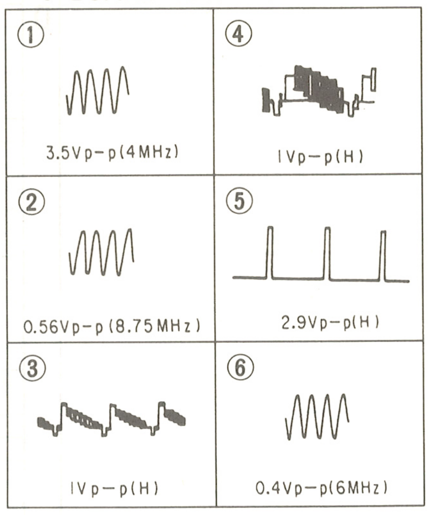

DIGITAL·TO·ANALOGUE CONVERTER DAC0
DIGITAL·TO·ANALOGUE CONVERTER DAC1
DIGITAL·TO·ANALOGUE CONVERTER DAC2
DIGITAL·TO·ANALOGUE CONVERTER DAC3
POWER·DOWN DETECTOR
DACX
POD
I²C BUS SLAVE RECEIVER
OUTPUT PORT P2
OUTPUT PORT P2N
OUTPUT PORT P1
16
1
2
3
9
6
12
11
4
5
8

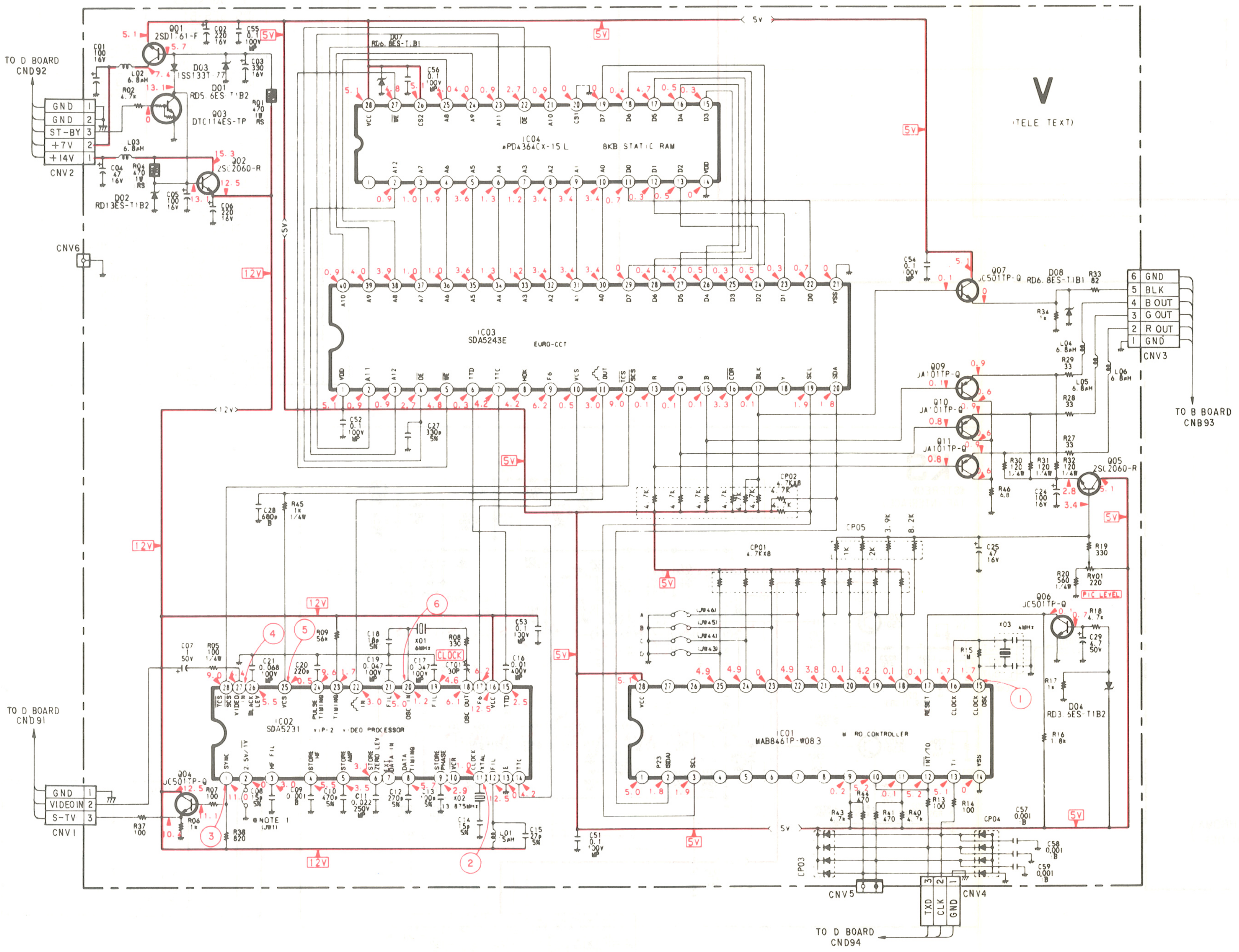
B BOARD IC331 TDA4555


DC FEED 8
ACC
ACC DEMOD
DL AMP DRIVER
BURST BLANK
MATRIX SECAM LIMITER PERMULATOR
SECAM REF
DEMOD
SECAM DEEMPH BLANKING COLOR KILLER
PAL/NTSC
SECAM V/H/V+H
IDENT
SYSTEM CONTROL STANDARD SCANNING
FORCED STANDARD SETTING
HUE NTSC ± 30°
SERVICE
2f osc PAL/NTSC DIVIDER. PLL
PULSE PROCESSING
SAND CASLLE PULSE DELECT
13
12
11
10
8
7
4
5
14
15
16
28
27
26
25
3
1
9
22
20
21
23
19
18
17
24
6
2

V	IC 01	MAB8461P-W083	MICRO CTL
	02	SDA5231	VIDEO PROCESSOR
	03	SDA5243E	EURO CCT
	04	μPD4364CX-15L	8KB STATIC RAM
	Q 01	2SD1761-F	5V REG
	02	2SC2060-R	12V REG
	03	DTC114ES-TP	ST BY
	04	JC501TP-Q	SYNC BUFF
	05	2SC2060-R	PIC LEVEL
	06	JC501TP-Q	RESET
	07	JC501TP-Q	BLK OUT
	09	JA101TP-Q	B OUT
	10	JA101TP-Q	G OUT
	11	JA101TP-Q	R OUT
	D 01	RD5.6ES-B2	5V REG
	02	RD13ES-B2	12V REG
	03	1SS133	ST BY
	04	RD3.6ES-B2	RESET
	07	RD6.8ES-B2	PROTECT-1
	08	RD6.8ES-B1	PROTECT-2

● V BOARD WAVEFORM



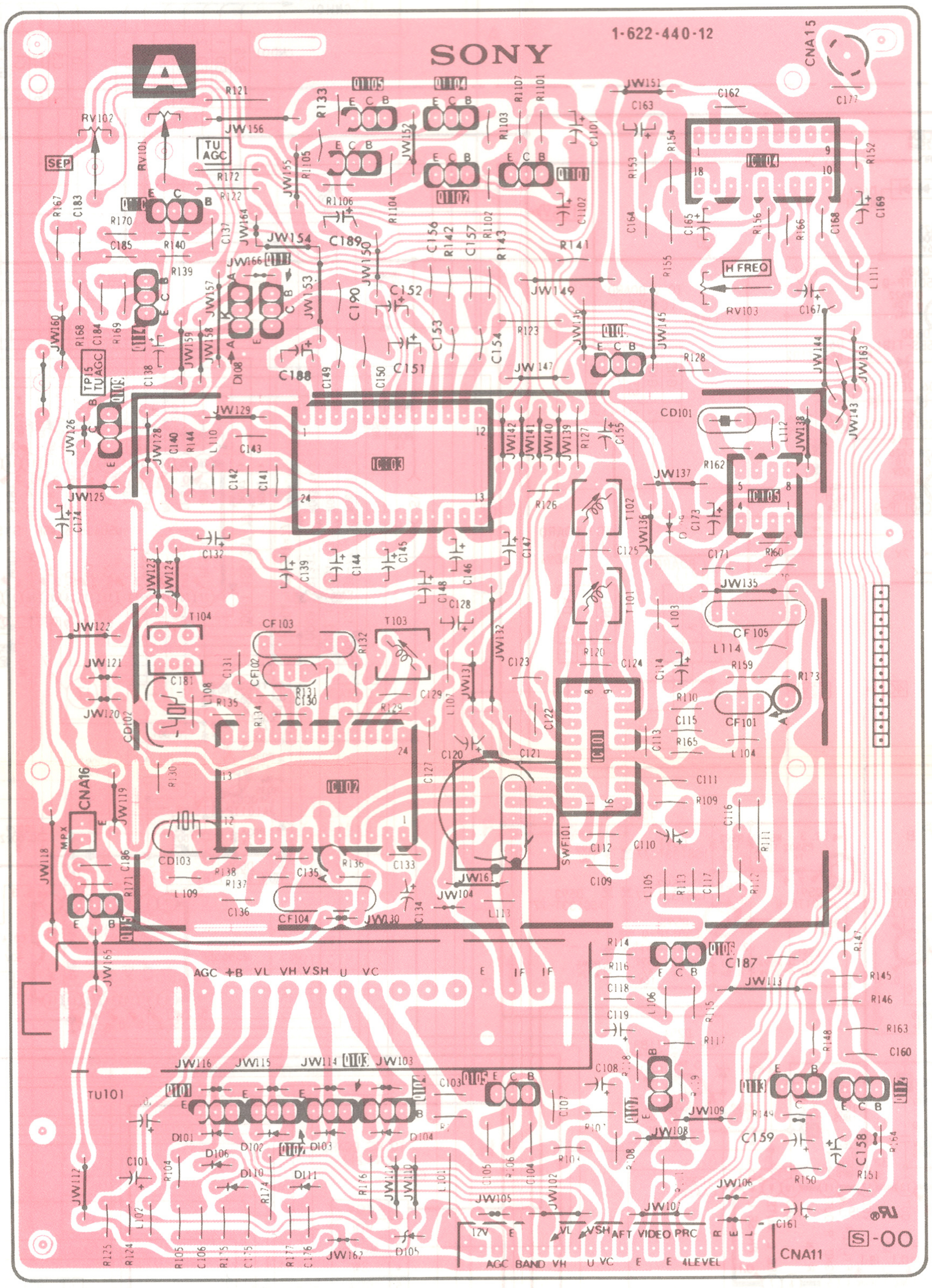

V
(TELE TEXT)
TO D BOARD
CND92
GND 1
GND 2
ST-BY 3
+7V 2
+14V 1
CNV2
CNV6
Q01
2SD1761-F
Q02
2SC2060-R
Q03
DTC114ES-TP
D01
RD5.6ES-T1B2
D02
RD13ES-T1B2
D03
1SS133T-77
D07
RD6.8ES-T1B1
IC04
μPD4364CX-15L
8KB STATIC RAM
IC03
SDA5243E
EURO-CCT
IC02
SDA5231
VIDEO PROCESSOR
IC01
MAB8461P-W083
MICRO CONTROLLER
Q04
JC501TP-Q
Q05
2SC2060-R
Q06
JC501TP-Q
Q07
JC501TP-Q
Q09
JA101TP-Q
Q10
JA101TP-Q
Q11
JA101TP-Q
D08
RD6.8ES-T1B1
D04
RD3.6ES-T1B2
X01
X02
X03
CLOCK
PIC LEVEL
NOTE 1
(JW1)
6 GND
5 BLK
4 B OUT
3 G OUT
2 R OUT
1 GND
CNV3
TO B BOARD
CNB93
TO D BOARD
CND91
GND 1
VIDEO IN 2
S-TV 3
CNV1
CNV5
CNV4
TXD
CLK
GND
TO D BOARD
CND94
CP01
CP02
CP03
CP04
CP05
5V
12V

5-4. PRINTED WIRING BOARDS *– Component Side –*

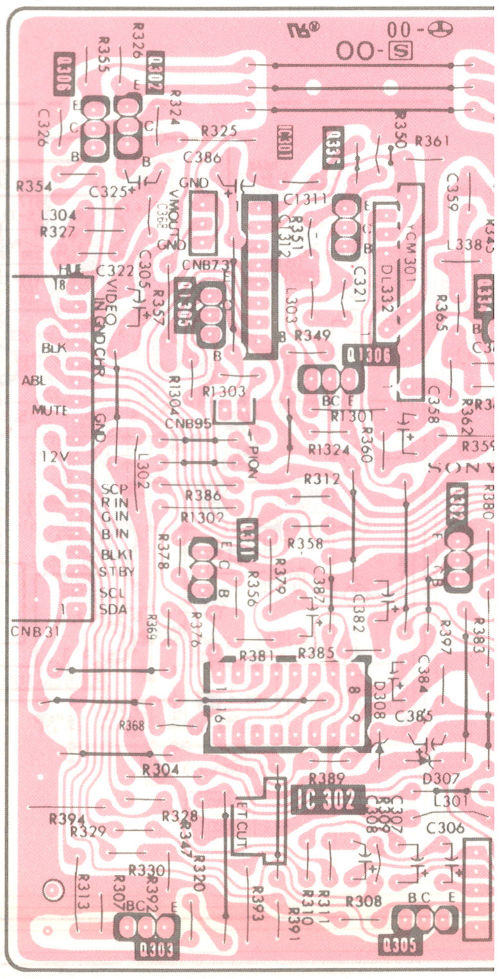
A SIGNAL TUNER, BAND SW, VIF, SIF

B R·G·B INTERFACE, D/A CONVERTER, CHROMA DECODER

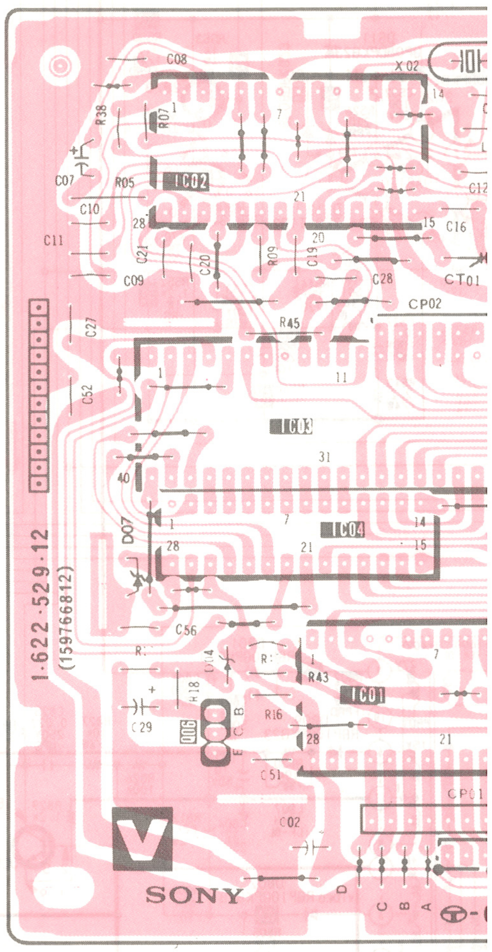
– A Board –


A
SONY
1-622-440-12
CNA15
IC104
IC103
IC102
IC101
H FREQ
RV103
SEP
TU AGC
CF103
CF104
CF105
CF101
CD101
CD103
T101
T102
T103
T104
SWF101
CNA16
MPX
TU101
AGC +B VL VH VSH U VC
12V AGC BAND VH U VC E E 4LEVEL
AFT VIDEO PRC
CNA11
S-00

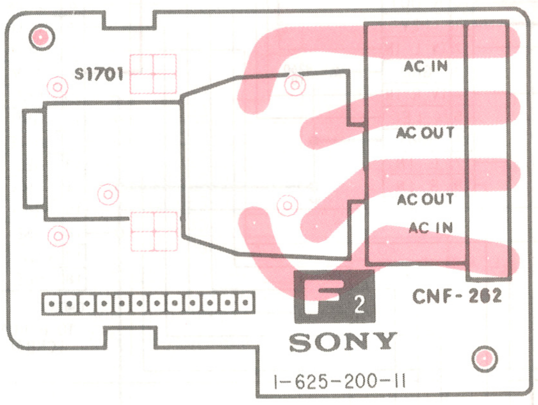
– B Board –


IC 302
SONY
BLK
ABL
MUTE
12V
SCP
R IN
G IN
B IN
BLK1
STBY
SCL
SDA
CNB31

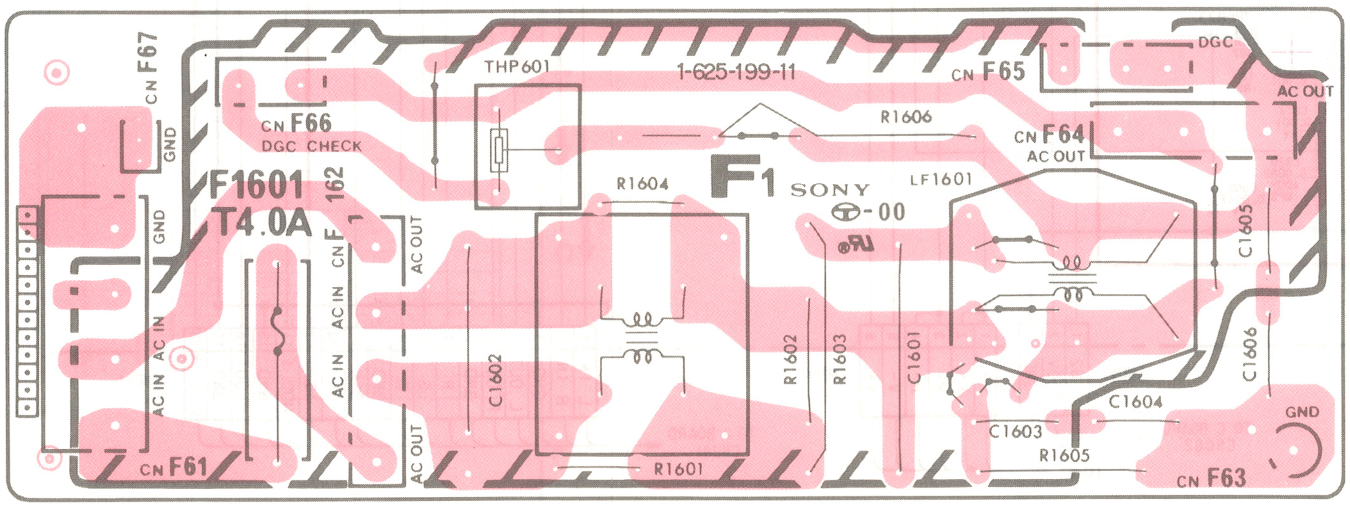
– V Board –


IC02
IC03
IC04
IC01
1-622-529-12
(159766812)
V
SONY

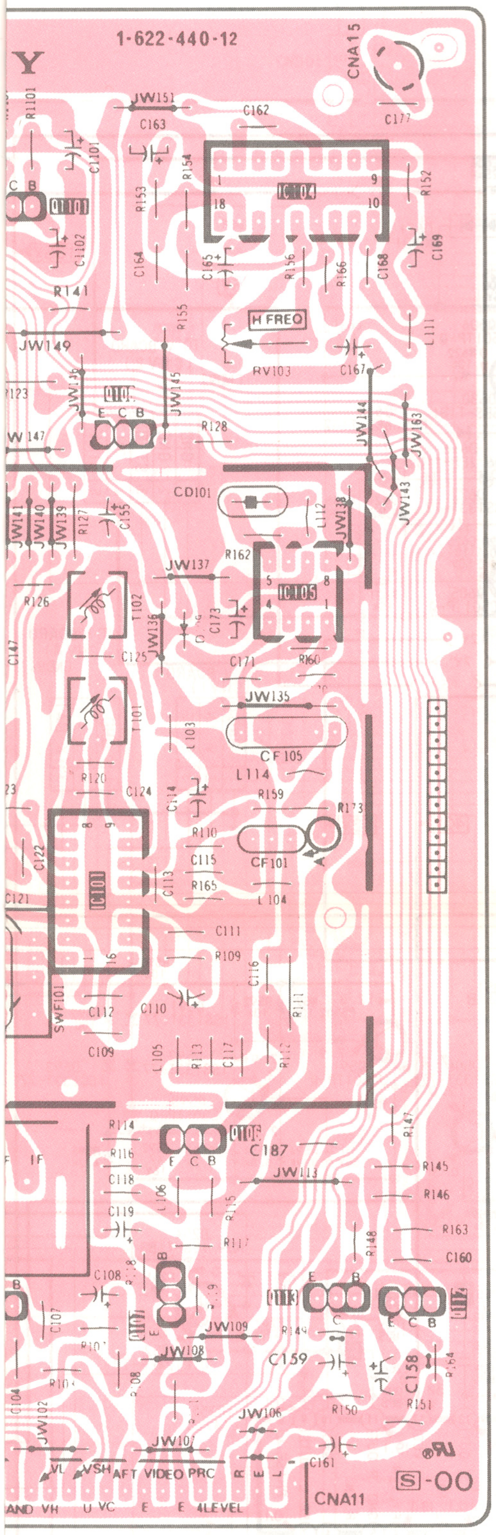
– F2 Board –


S1701
AC IN
AC OUT
AC OUT
AC IN
F2
CNF-262
SONY
1-625-200-11

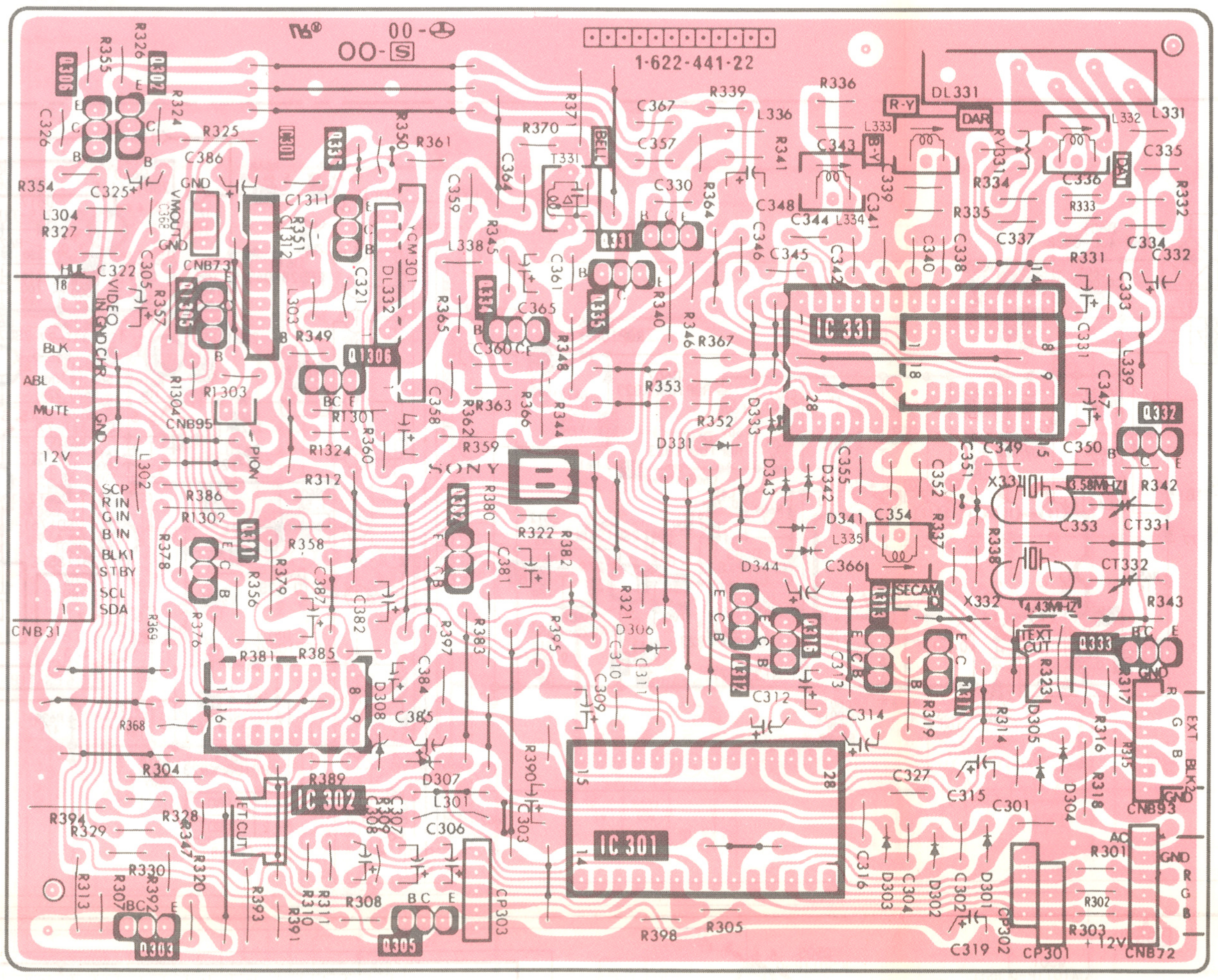
– F1 Board –


CN F67
GND
CN F66
DGC CHECK
F1601
T4.0A
162
THP601
1-625-199-11
CN F65
R1606
CN F64
AC OUT
DGC
AC OUT
R1604
F1
SONY
LF1601
C1605
C1606
AC IN
CN F61
AC OUT
C1602
R1602
R1603
C1601
R1601
C1604
C1603
R1605
CN F63
GND

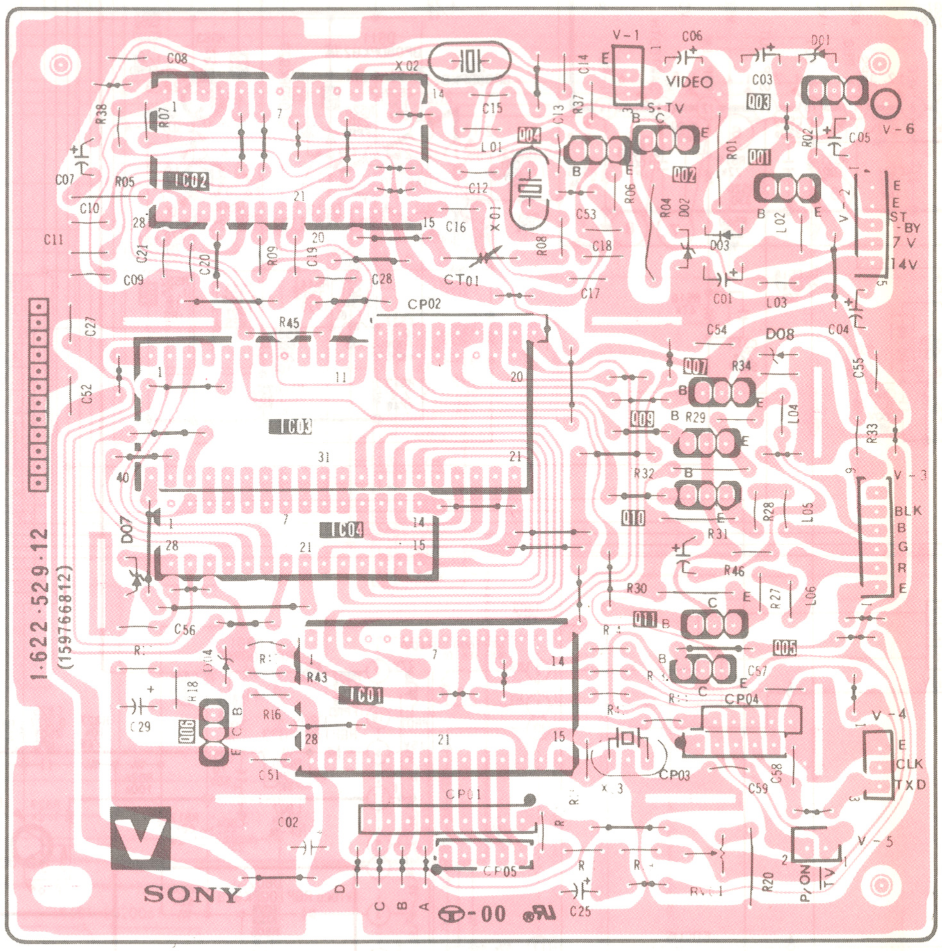
A [SIGNAL TUNER, BAND SW, VIF, SIF] **B** [R·G·B INTERFACE, D/A CONVERTER, CHROMA DECODER] **V** [TELETEXT] **F1** [LINE FILTER] **F2**

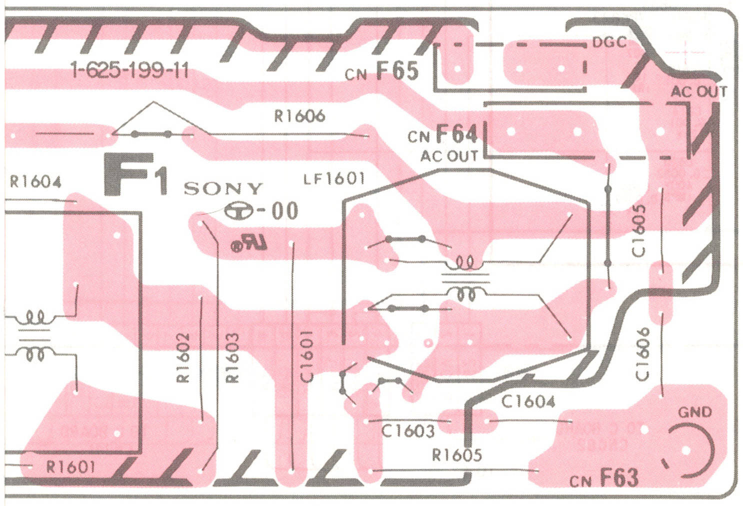

1-622-440-12
CNA15
IC104
IC105
IC101
H FREQ
RV103
CF105
CF101
CNA11
VSH AFT VIDEO PRC
4LEVEL
S-00

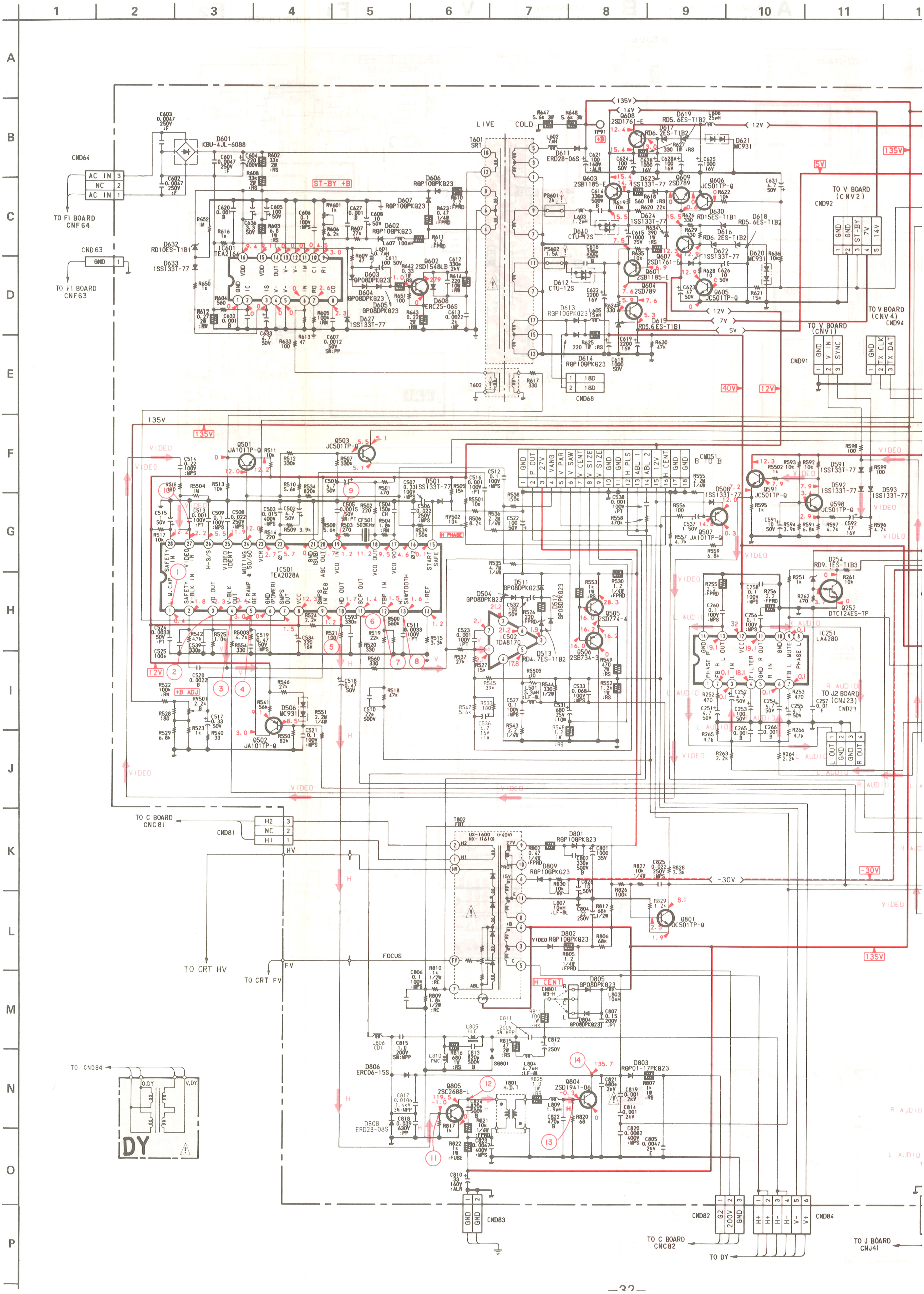
– B Board –

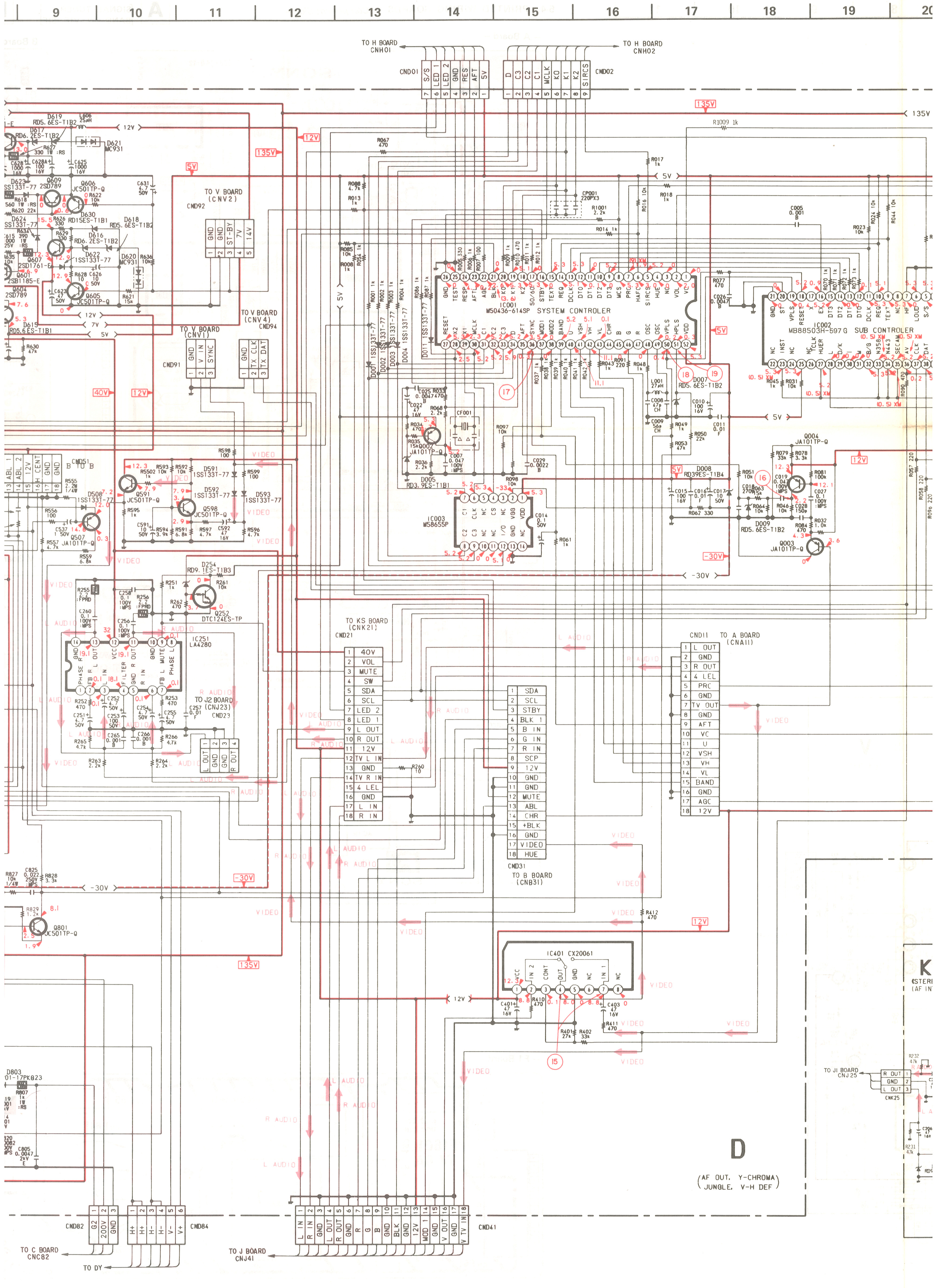

1-622-441-22
00-S
IC331
IC302
IC301
SONY
B
CNB31
CNB72
CNB93
SCP
R IN
G IN
B IN
BLK
STBY
SCL
SDA
12V
BLK
ABL
MUTE
SECAM
TEXT CUT
3.58MHz
4.43MHz

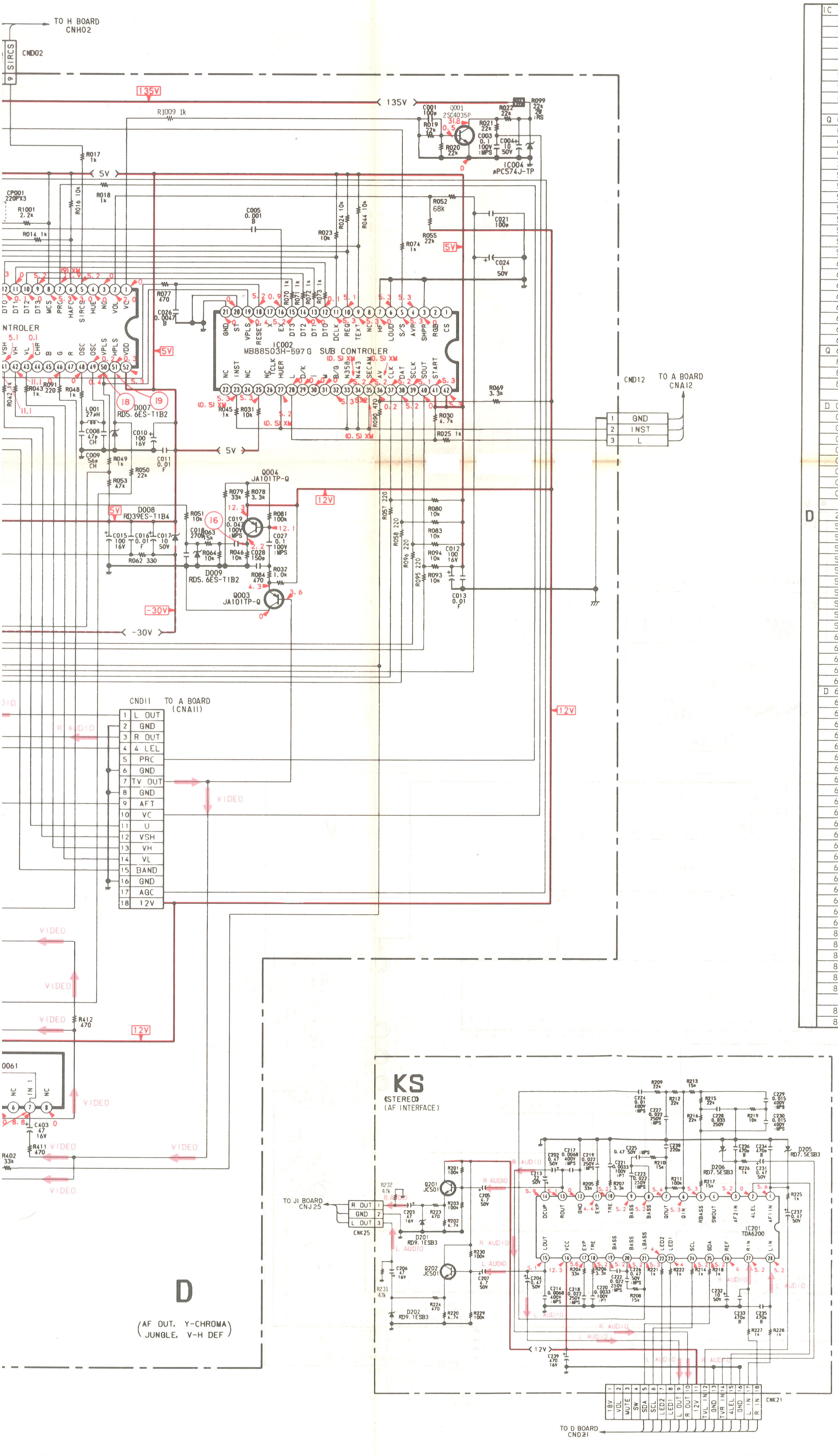
– V Board –


1-622-529-12
(15976812)
V
SONY
IC01
IC02
IC03
IC04
VIDEO
S-TV
ST BY
7V
14V
BLK
CLK
TXD
00


1-625-199-11
F1
SONY
00
CN F65
CN F64
AC OUT
CN F63
DGC
GND
LF1601
R1601
R1602
R1603
R1604
R1605
R1606
C1601
C1603
C1604
C1605
C1606


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
CND64
AC IN
NC
AC IN
TO F1 BOARD CNF64
CND63
GND
TO F1 BOARD CNF63
D601 KBU-4JL-6088
ST-BY +B
IC601 TEA2164
T601 SRT
LIVE
COLD
TP91 +B
D611 ERD28-06S
PS601 2A
PS602 1.5A
D612 CTU-12S
D610 CTU-12S
Q602 2SD1548LB
D608 ERC25-06S
Q608 2SD1761-E
Q603 2SB1185-E
Q609 2SD789
Q606 JC501TP-Q
Q607 2SD1761-E
Q601 2SB1185-E
Q604 2SD789
Q605 JC501TP-Q
D621 MC931
D620 MC931
D613 RGP10GPK023
D614 RGP10GPK023
D615 RD5.6ES-T1B1
T602
CND68
18D
135V
14V
12V
7V
5V
40V
TO V BOARD (CNV2)
CND92
GND
ST-BY
7V
14V
TO V BOARD (CNV1)
CND91
V IN
SYNC
TO V BOARD (CNV4)
CND94
TX CLK
TX DAT
IC501 TEA2028A
Q501 JA101TP-Q
Q503 JC501TP-Q
Q502 JA101TP-Q
D506 MC931
CF501 503KHz
H PHASE
+B ADJ
RV501
RV502
VIDEO
CND51 B TO B
GND
P OUT
27V
VANG
V PAR
V SAW
V CENT
V SIZE
H SIZE
H PLS
ABL 1
ABL 2
IC502 TDA8170
Q505 2SD774-4
Q506 2SB734-3
Q507 JA101TP-Q
Q591 JC501TP-Q
Q598 JC501TP-Q
D591 1SS133T-77
D592 1SS133T-77
D593 1SS133T-77
Q252 DTC124ES-TP
D254 RD9.1ES-T1B3
IC251 LA4280
AUDIO
L AUDIO
R AUDIO
TO J2 BOARD (CNJ23)
CND23
L OUT
R OUT
TO C BOARD CNC81
CND81
H2
NC
H1
HV
TO CRT HV
TO CRT FV
FV
FOCUS
T802 FBT
UX-1600 NX-(1610)
ABL
FVR
D801 RGP10GPK023
D809 RGP10GPK023
D802 RGP10GPK023
Q801 JC501TP-Q
-30V
H CENT
CN801
D805 GP08DPK023
D804 GP08DPK023
S8001
Q805 2SC2688-L
Q804 2SD1941-06
T801 H.D.T
D803 RGP01-17PK023
D806 ERC06-15S
D808 ERD28-08S
L805 HLC
L806 CDI
L810 PNC
TO CND84
DY
CND83
CND82
G2
200V
CND84
H+
H-
V-
V+
TO C BOARD CNC82
TO DY
TO J BOARD CNJ41


9
10
11
12
13
14
15
16
17
18
19
TO H BOARD CNH01
TO H BOARD CNH02
CND01
S/S
LED 1
LED 2
GND
RES
AFT
5V
CND02
D
C3
C2
C1
MCLK
KO
K1
K2
SIRCS
135V
12V
5V
40V
-30V
R1009 1k
D619 RD5.6ES-T1B2
L606 25μH
D617 RD6.2ES-T1B2
D621 MC931
R627 330 1W :RS
C628 1000 16V
C628A 100 16V
C625 1000 16V
D623 1SS133T-77
Q609 2SD789
Q606 JC501TP-Q
C631 4.7 50V
R622 10k
D630 RD15ES-T1B1
D618 RD5.6ES-T1B2
D624 1SS133T-77
D616 RD6.2ES-T1B2
D622 1SS133T-77
Q607 2SD1761-E
Q601 2SB1185-E
Q604 2SD789
Q605 JC501TP-Q
D620 MC931
R621 15k
D615 RD5.6ES-T1B1
R630 47k
TO V BOARD (CNV2)
CND92
GND
ST-BY
7V
14V
TO V BOARD (CNV4)
CND94
TO V BOARD (CNV1)
CND91
V IN
SYNC
TX CLK
TX DAT
R067 470
R088 4.7k
R013 1k
R085 10k
R054 1k
R008 1k
R001 1k
R002 1k
R003 1k
R004 1k
R086 1k
R087 1k
D001 1SS133T-77
D002 1SS133T-77
D003 1SS133T-77
D004 1SS133T-77
D011 1SS133T-77
R017 1k
R018 1k
R016 10k
CP001 220PX3
R1001 2.2k
R014 1k
C005 0.001 B
R024 10k
R044 10k
R023 10k
IC001 M50436-614SP SYSTEM CONTROLER
GND
TEST
RESP
AFT
AGC
50/60
STBY
TEXT
REQ
DCLK
DT0
DT1
DT2
DT3
MCS
PRC
HAFC
SIRCS
HUE
VOL
VC
RESET
CX2
CX1
MCLK
C1
C2
C3
AFT
SYNC
MOD1
MOD2
BAND
U
VSH
VH
VL
CHR
B
G
R
OSC
OSC
VPLS
HPLS
VDD
R077 470
C026 0.0047 B
IC002 MB88503H-597G SUB CONTROLER
R031 10k
R045 1k
R090 470
R037 1k
R038 1k
R039 1k
R040 1k
R041 1k
R042 1k
R043 1k
R091 220
R048 1k
L001 27μH
C008 47p CH
C009 56p CH
D007 RD5.6ES-T1B2
C010 100 16V
C011 0.01 F
R049 1k
R050 22k
R053 47k
C025 0.0047
R033 470
C022 47 16V
R068 2.2k
CF001
R034 470
R035 15k
Q002 JA101TP-Q
R036 2.2k
C007 0.047 100V :MPS
D005 RD3.9ES-T1B1
R097 10k
C029 0.0022 B
R098 10k
IC003 M58655P
C014 0.1 50V
R061 1k
D008 RD39ES-T1B4
C015 100 16V
C016 0.01 F
C017 10 50V
R062 330
Q004 JA101TP-Q
R079 33k
R078 3.3k
R051 10k
C019 0.047 100V :MPS
R081 100k
C018 270P
R063 15k
R064 10k
R046 10k
C028 150p
C027 0.1 100V :MPS
R032 1.0k
D009 RD5.6ES-T1B2
R084 470
Q003 JA101TP-Q
R057 220
R058 220
R096 220
CND51 B TO B
ABL 1
ABL 2
12V
CENT
GND
GND
R555 2.2k 1/4W
D508 1SS133T-77
R556 100
C537 1 50V
Q507 JA101TP-Q
R557 4.7k
R559 6.8k
R593 1k
R5502 10k
R592 10k
D591 1SS133T-77
R599 100
R598 100
Q591 JC501TP-Q
D592 1SS133T-77
D593 1SS133T-77
Q598 JC501TP-Q
R595 1k
C591 10 50V
R594 3.9k
R591 6.8k
R597 4.7k
C592 47 16V
R596 4.7k
VIDEO
L AUDIO
R AUDIO
D254 RD9.1ES-T1B3
R255 2.2 :FPRD
R251 1k
R261 10k
R256 2.2 :FPRD
C258 0.1 100V :MPS
R262 470
Q252 DTC124ES-TP
C260 0.1 100V :MPS
C256 0.1 100V :MPS
IC251 LA4280
PHASE
R OUT
VCC
FILTER
L IN
R IN
MUTE
FB
L OUT
R252 470
C251 4.7 50V
R265 4.7k
C252 4.7 50V
C253 100 50V
C265 0.001 B
C254 4.7 50V
C266 0.001 B
R253 470
C255 4.7 50V
R266 4.7k
C257 0.01 F
TO J2 BOARD (CNJ23)
CND23
R263 2.2k
R264 2.2k
TO KS BOARD (CNK21)
CND21
40V
VOL
MUTE
SW
SDA
SCL
LED 2
LED 1
L OUT
R OUT
TV L IN
TV R IN
4 LEL
L IN
R IN
R260 10
STBY
BLK 1
B IN
G IN
R IN
SCP
ABL
CHR
+BLK
VIDEO
HUE
CND31
TO B BOARD (CNB31)
CND11 TO A BOARD (CNA11)
TV OUT
AFT
VC
U
VSH
VH
VL
BAND
AGC
R827 10k 1/4W
C825 0.022 250V :MPS
R828 3.3k
R829 1.2k
Q801 JC501TP-Q
R412 470
IC401 CX20061
VCC
IN 2
CONT
OUT
IN 1
NC
C401 47 16V
R410 470
C403 47 16V
R411 470
R401 27k
R402 33k
D803 01-17PK823
R807 1k 1W :RS
C805 0.0047 2kV E
TO J1 BOARD CNJ25
CNK25
R232 47k
R231 47k
CND82
G2
200V
TO C BOARD CNC82
H+
H-
V-
V+
CND84
TO DY
TO J BOARD CNJ41
BLK
MOD 1
V OUT
V TV IN
CND41
D
(AF OUT, Y-CHROMA JUNGLE, V-H DEF)
15
16
17
18
19


TO H BOARD
CNH02
SIRCS
CND02
135V
R1009 1k
Q001
2SC4035P
IC004
μPC574J-TP
5V
IC002
MB88503H-597G SUB CONTROLER
NTROLER
D007
RD5.6ES-T1B2
D008
RD39ES-T1B4
D009
RD5.6ES-T1B2
Q004
JA101TP-Q
Q003
JA101TP-Q
12V
-30V
CND12
TO A BOARD
CNA12
1 GND
2 INST
3 L
CND11
TO A BOARD
(CNA11)
1 L OUT
2 GND
3 R OUT
4 4 LEL
5 PRC
6 GND
7 TV OUT
8 GND
9 AFT
10 VC
11 U
12 VSH
13 VH
14 VL
15 BAND
16 GND
17 AGC
18 12V
R AUDIO
VIDEO
D
(AF OUT, Y-CHROMA JUNGLE, V-H DEF)
KS
(STEREO)
(AF INTERFACE)
TO J1 BOARD
CNJ25
R OUT 1
GND 2
L OUT 3
CNK25
Q201
JC501
Q202
JC501
D201
RD9.1ESB3
D202
RD9.1ESB3
D205
RD7.5ESB3
D206
RD7.5ESB3
IC201
TDA6200
L AUDIO
12V
CNK21
TO D BOARD
CND21
18V
VOL
MUTE
SW
SDA
SCL
LED2
LED1
L OUT
R OUT
12V
TVL IN
TVR IN
4LEL
GND
L IN
R IN

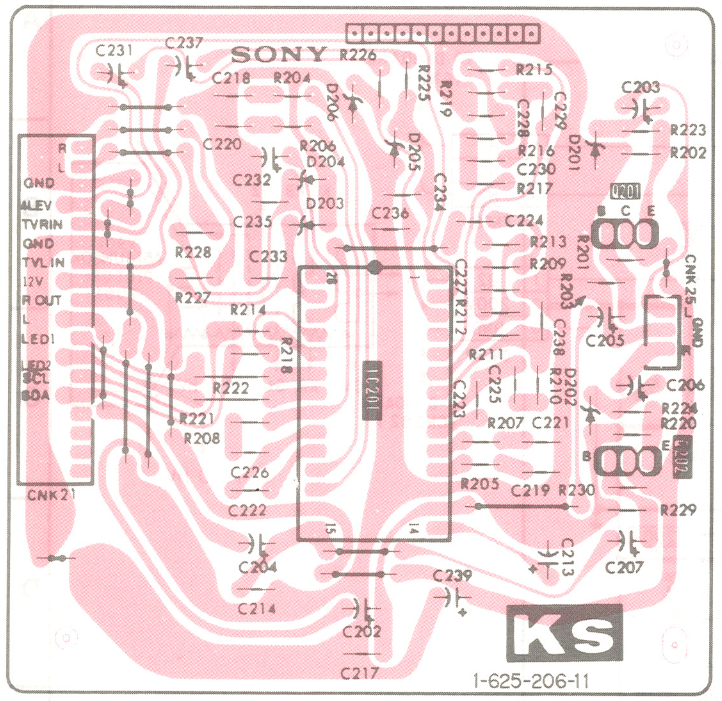
IC	001	M50436-614SP	TUNING CTL
	002	MB88503H-597G	SYSTEM CTL
	003	M58655P	MEMORY
	004	μPC574J	REG
	251	LA4280	AF OUT
	401	CX20061	VIDEO SW
	501	TEA2028A	JUNGLE
	502	TDA8170	V OUT
	601	TEA2164	POWER CTL
Q	001	2SC403SP	VC AMP
	002	JA101	RESET
	003	JA101	VIDEO BUFF
	004	JA101	SYNC SEP
	252	DTC124ES	MUTE
	501	JA101	50/60 SW
	502	JA101	V SAW
	503	JC501	SYNC DET
	505	2SD774-4	50/60 SW
	506	2SB734-3	V SAW
	507	JA101	SYNC DET
	591	JC501	V CENT-1
	598	JC501	V CENT-2
	601	2SB1185-E	VLK SW
	602	2SD1548-LB	SYNC SW
	603	2SB1185-E	SYNC AMP
	604	2SD789-3	ST BY SW-1
	605	JC501	REG OUT
	606	JC501	ST BY SW-2
	607	2SD1761-E	+5V REG
	608	2SD1761-E	+12V REG-2
Q	609	2SD789-3	ST BY SW-5
	801	JC501	ABL AMP
	804	2SD1941-06	H OUT
	805	2SC2688-L	H DRIVE
D	001	1SS133	KEY SCAN-1
	002	1SS133	KEY SCAN-2
	003	1SS133	KEY SCAN-3
	004	1SS133	KEY SCAN-4
	005	RD3.9ES-B1	PROTECT-1
	007	RD5.6ES-B2	PROTECT-2
	008	RD39ES-B4	39V ZENER
	009	RD5.6ES-B2	PROTECT-3
	011	1SS133	KEY SCAN-5
	254	RD7.1ES-B3	9V ZENER
	501	1SS133	SOFT START
	504	GP08DPKG23	PONP UP
	506	MC931	PROTECT-4
	508	1SS133	BLK SW
	511	GP08DPKG23	PROTECT-11
	512	GP08DPKG23	PROTECT-12
	513	RD4.7ES-B2	PROTECT-10
	591	1SS133	SYNC SW-1
	592	1SS133	SYNC SW-2
	593	1SS133	SYNC SW-3
	601	KBU4JL-6088	AC RECT
	602	RGP10GPKG23	PROTECT-5
	603	GP08DPKG23	REG DRIVE-1
	604	GP08DPKG23	REG DRIVE-2
	605	GP08DPKG23	REG DRIVE-3
D	606	RGP10GPKG23	REF RECT-1
	607	RGP10GPKG23	REF RECT-2
	608	ERC25-06S	PULSE CLIPPER
	610	CTU-12S	+14V RECT
	611	ERD28-06S	+135V RECT
	612	CTU-12S	+7V RECT
	613	RGP10GPKG23	AF RECT
	614	RGP10GPKG23	AF RECT
	615	RD5.6ES-B1	REG-4
	616	RD6.2ES-B2	REG-1
	617	RD6.2ES-B2	REG-2
	618	RD5.6ES-B2	REG-3
	619	RD5.6ES-B2	REG-3
	620	MC931	PROTECT-6
	621	MC931	PROTECT-7
	622	1SS133	PROTECT-8
	623	1SS133	STBY SW-1
	624	1SS133	STBY SW-2
	627	1SS133	PROTECT-9
	630	RD15ES-B1	REG
	632	RD10ES-B2	PROTECT
	633	1SS133	PROTECT
	801	RGP10GPKG23	27V RECT
	802	RGP10GPKG23	200V RECT
	803	RGP01-17PKG23	G2RECT
	804	GP08DPKG23	H CENT-1
	805	GP08DPKG23	H CENT-2
	806	ERC06-15S	H DANPER-1
	808	ERD28-08S	PIN DANPER
	809	RGP10GPKG23	-30V RECT

Ks	IC201	TDA6200	AF INTERFACE
	Q201	JC501	R BUFF
	202	JC501	L BUFF
	D201	RD9.1ESB3	PROTECT-1
	202	RD9.1ESB3	PROTECT-2
	205	RD7.5ESB3	PROTECT-5
	206	RD7.5ESB3	PROTECT-6

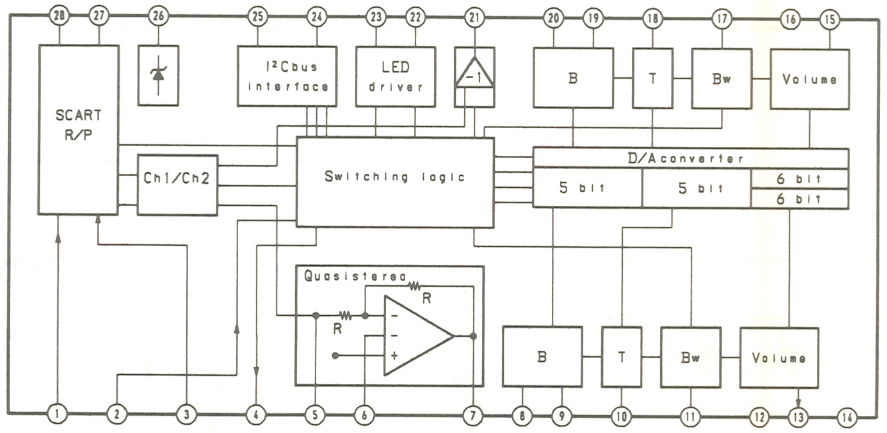
Ks [AF INTERFACE]

D [AF OUT, Y-CHROMA, JUNGLE, V-H DEF]

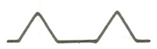
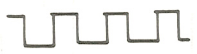
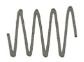
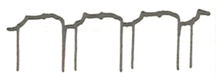
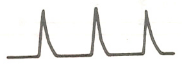
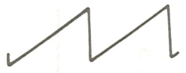
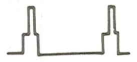
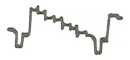
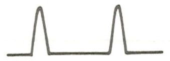
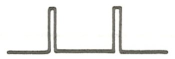
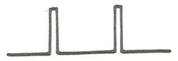
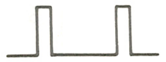
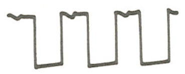
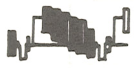
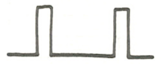
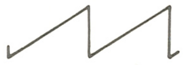
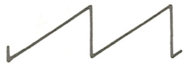
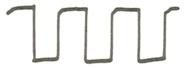
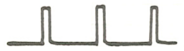
— KS Board —


SONY
C231
C237
C218
R204
R226
R225
R219
R215
C203
R223
R202
C220
R206
D204
D206
D205
C228
C229
C230
R216
R217
D201
GND
ALEV
TVRIN
GND
TVLIN
12V
R OUT
LED1
LED2
SCL
SDA
C232
C235
C236
C234
C224
R213
R209
R201
R203
R228
C233
R227
R214
R218
IC201
C227
R212
C238
C205
R211
C225
R210
D202
C206
R224
R220
R222
C223
R221
R208
R207
C221
C226
R205
C219
R230
C222
R229
C204
C213
C207
C214
C239
C202
C217
CNK21
CNK25
KS
1-625-206-11

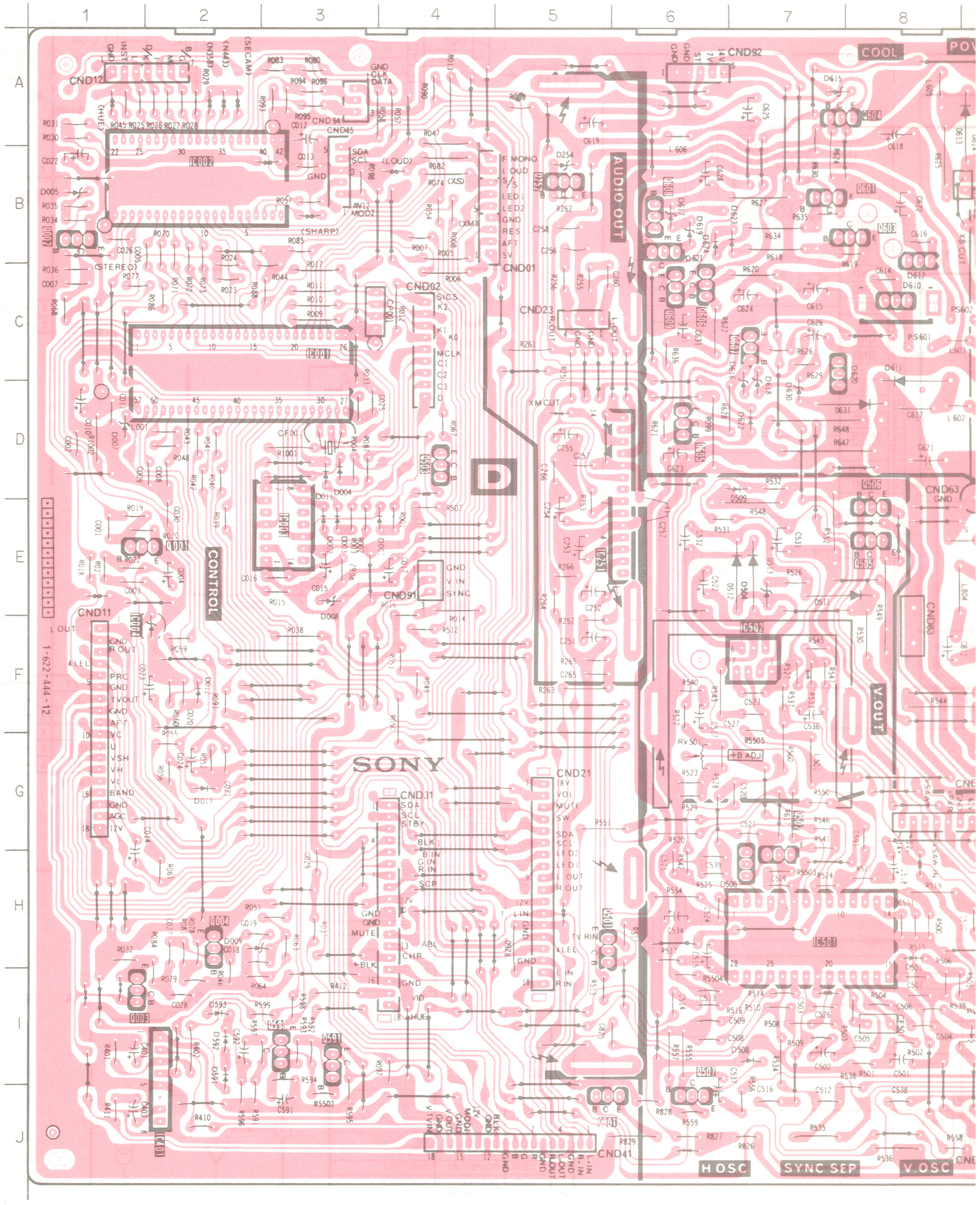
KS BOARD IC201 TDA6200

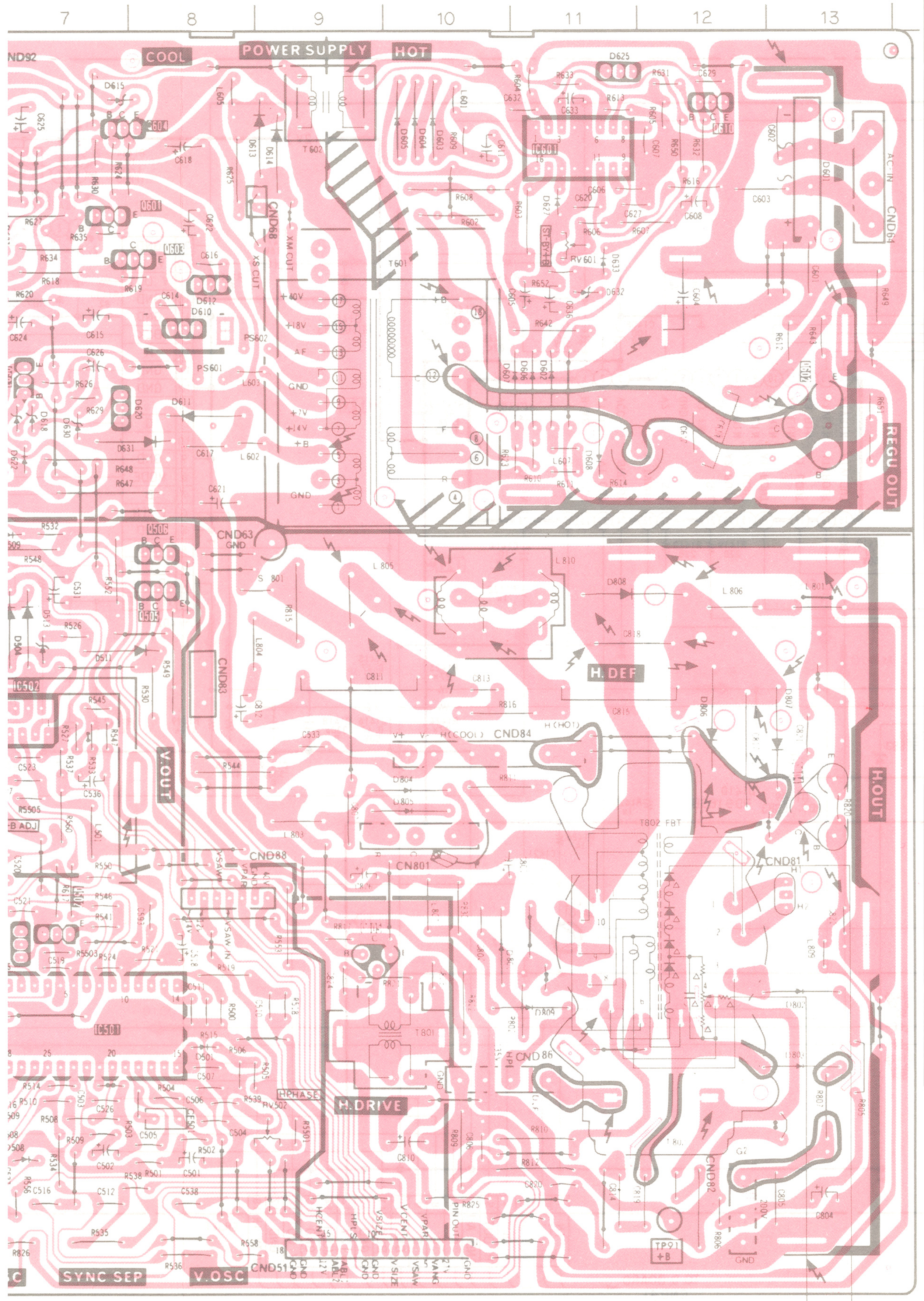

28
27
26
25
24
23
22
21
20
19
18
17
16
15
SCART R/P
I²C bus interface
LED driver
-1
B
T
Bw
Volume
Ch1/Ch2
Switching logic
D/A converter
5 bit
5 bit
6 bit
6 bit
Quasistereo
R
R
B
T
Bw
Volume
1
2
3
4
5
6
7
8
9
10
11
12
13
14

● **D BOARD WAVEFORM**

①  1.2Vp−p(H)	⑤  4Vp−p(H)	⑨  0.1Vp−p(503kHz)	⑬  12Vp−p(H)	⑰  5.6Vp−p(H)
②  2.4Vp−p(V)	⑥  11Vp−p(H)	⑩  1.8Vp−p(H)	⑭  1200Vp−p(H)	⑱  5.6Vp−p(V)
③  5.3Vp−p(V)	⑦  14Vp−p(H)	⑪  3.2Vp−p(H)	⑮  1Vp−p(H)	⑲  6.4Vp−p(H)
④  2.4Vp−p(V)	⑧  3.6Vp−p(H)	⑫  230Vp−p(H)	⑯  11Vp−p(H)	

— D Board —


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
COOL
CND12
CND92
IC002
IC001
AUDIO OUT
CONTROL
D
SONY
CND21
CND31
CND41
CND11
CND91
CND02
CND23
CND63
CND83
IC502
IC501
V-OUT
+B ADJ
(SHARP)
(STEREO)
(SECAM)
1-622-444-12
H OSC
SYNC SEP
V.OSC


7
8
9
10
11
12
13
COOL
POWER SUPPLY
HOT
REGU OUT
AC IN
CND64
CND68
CND63
CND83
CND84
CND88
CN801
CND81
CND82
CND51
H.DEF
V.OUT
H.OUT
IC502
IC501
IC601
H.DRIVE
SYNC SEP
V.OSC
H PHASE
T601
T602
T801
PS601
PS602
TP91
GND
FV
HV

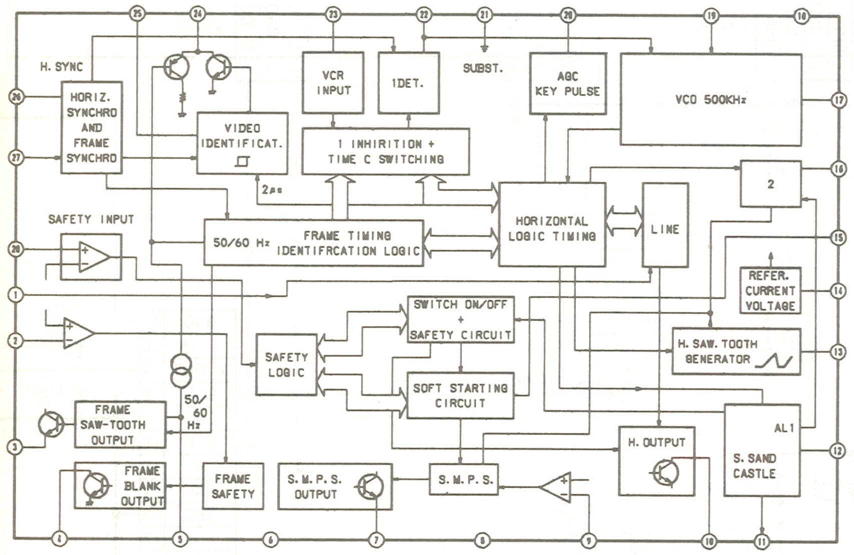
IC	
IC001	D-3
IC002	B-2
IC003	E-3
IC004	F-2
IC251	E-6
IC401	J-2
IC501	H-7
IC502	F-7
IC601	B-11

TRANSISTOR	
Q001	E-2
Q002	B-1
Q003	I-2
Q004	H-2
Q252	B-6
Q501	H-6
Q502	H-7
Q503	D-4
Q505	E-8
Q506	E-8
Q507	J-6
Q591	I-3
Q598	I-3
Q601	B-8
Q602	D-13
Q603	B-8
Q604	A-8
Q605	D-6
Q606	C-6
Q607	C-7
Q608	B-6
Q609	C-6
Q801	J-6
Q804	G-13
Q805	H-10

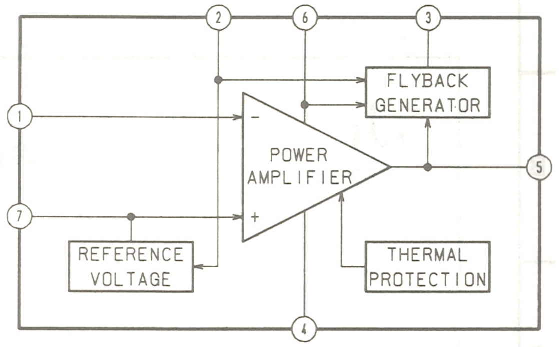
DIODE	
D001	E-4
D002	E-3
D003	E-3
D004	D-3
D005	B-1
D007	D-1
D008	F-3
D009	I-3
D011	E-3
D013	G-2
D254	B-5
D501	I-8
D504	E-7
D506	H-7
D508	I-7
D511	F-8
D512	E-7
D513	E-7
D591	J-2
D592	I-2
D593	I-2
D601	B-13
D602	C-11
D603	A-10
D604	A-10
D605	A-10
D606	C-11
D607	C-11
D608	D-11
D610	C-8
D611	D-8
D612	C-8
D613	A-9
D614	B-9
D615	A-8
D616	D-7
D617	B-6
D618	D-7
D619	B-6
D620	D-8
D621	C-6
D622	D-7
D623	C-7
D624	C-7
D627	B-11
D630	D-7
D632	C-11
D633	C-11
D801	H-11
D802	H-13
D803	I-13
D804	G-10
D805	G-10
D806	F-12
D808	E-12
D809	H-11

VARIABLE RESISTOR	
RV501	G-6
RV502	I-9
RV601	B-11

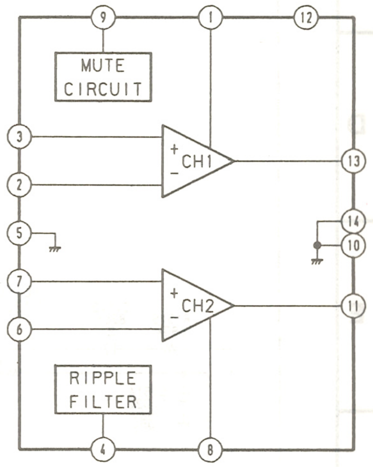
D BOARD IC501 TEA2028A


H. SYNC
HORIZ. SYNCHRO AND FRAME SYNCHRO
VIDEO IDENTIFICAT.
VCR INPUT
IDET.
SUBST.
AGC KEY PULSE
VCO 500KHz
I INHIBITION + TIME C SWITCHING
2μs
SAFETY INPUT
50/60 Hz
FRAME TIMING IDENTIFICATION LOGIC
HORIZONTAL LOGIC TIMING
LINE
REFER. CURRENT VOLTAGE
SWITCH ON/OFF + SAFETY CIRCUIT
SAFETY LOGIC
H. SAW. TOOTH GENERATOR
SOFT STARTING CIRCUIT
FRAME SAW-TOOTH OUTPUT
50/60 Hz
FRAME BLANK OUTPUT
FRAME SAFETY
S. M. P. S. OUTPUT
S. M. P. S.
H. OUTPUT
S. SAND CASTLE
AL1

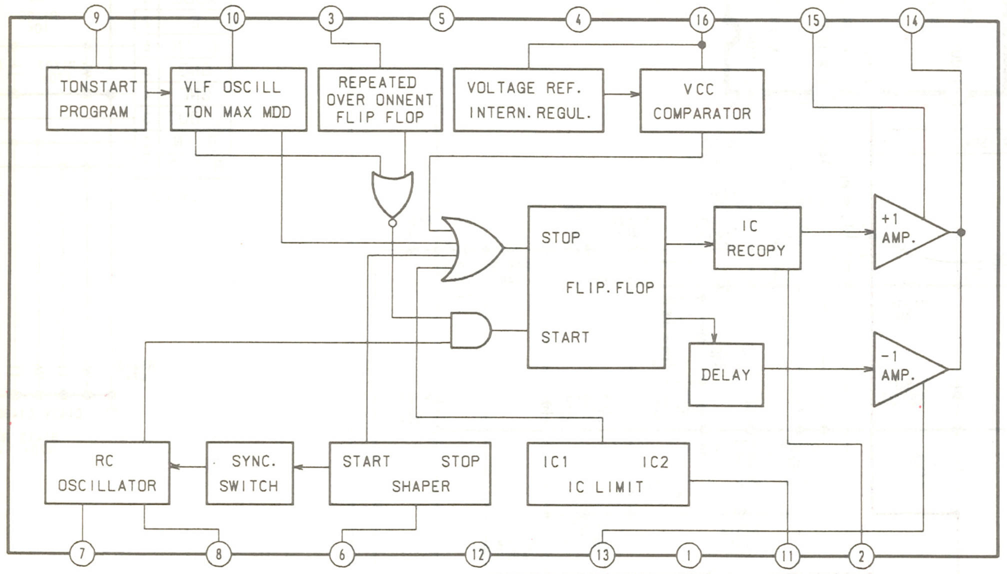
D BOARD IC502 TDA8170

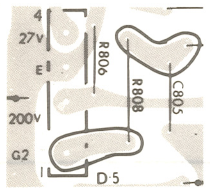

FLYBACK GENERATOR
POWER AMPLIFIER
REFERENCE VOLTAGE
THERMAL PROTECTION
1
2
3
4
5
6
7

D BOARD IC251 LA4280

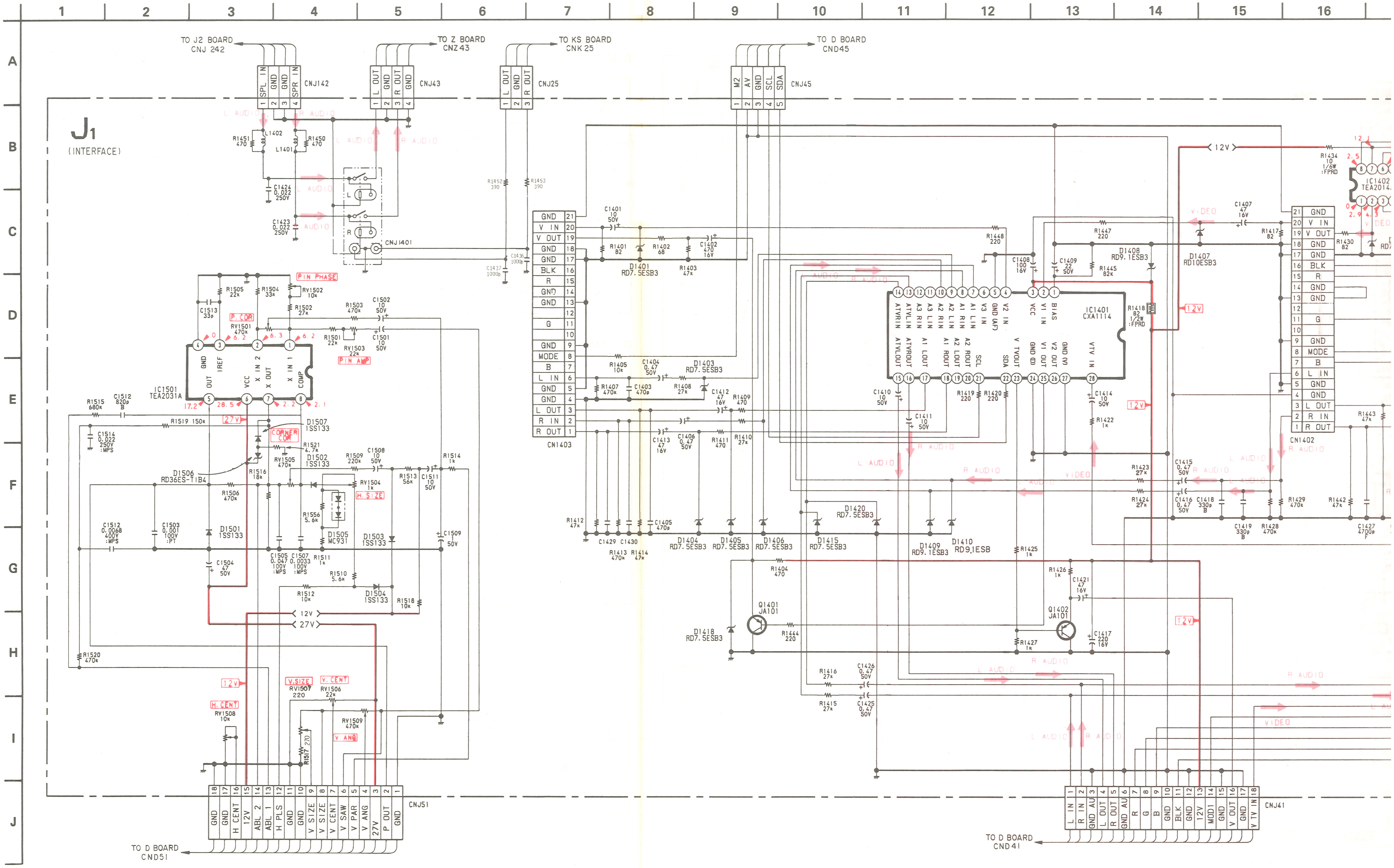

MUTE CIRCUIT
CH1
CH2
RIPPLE FILTER
9
1
12
3
2
5
7
6
13
14
10
11
4
8

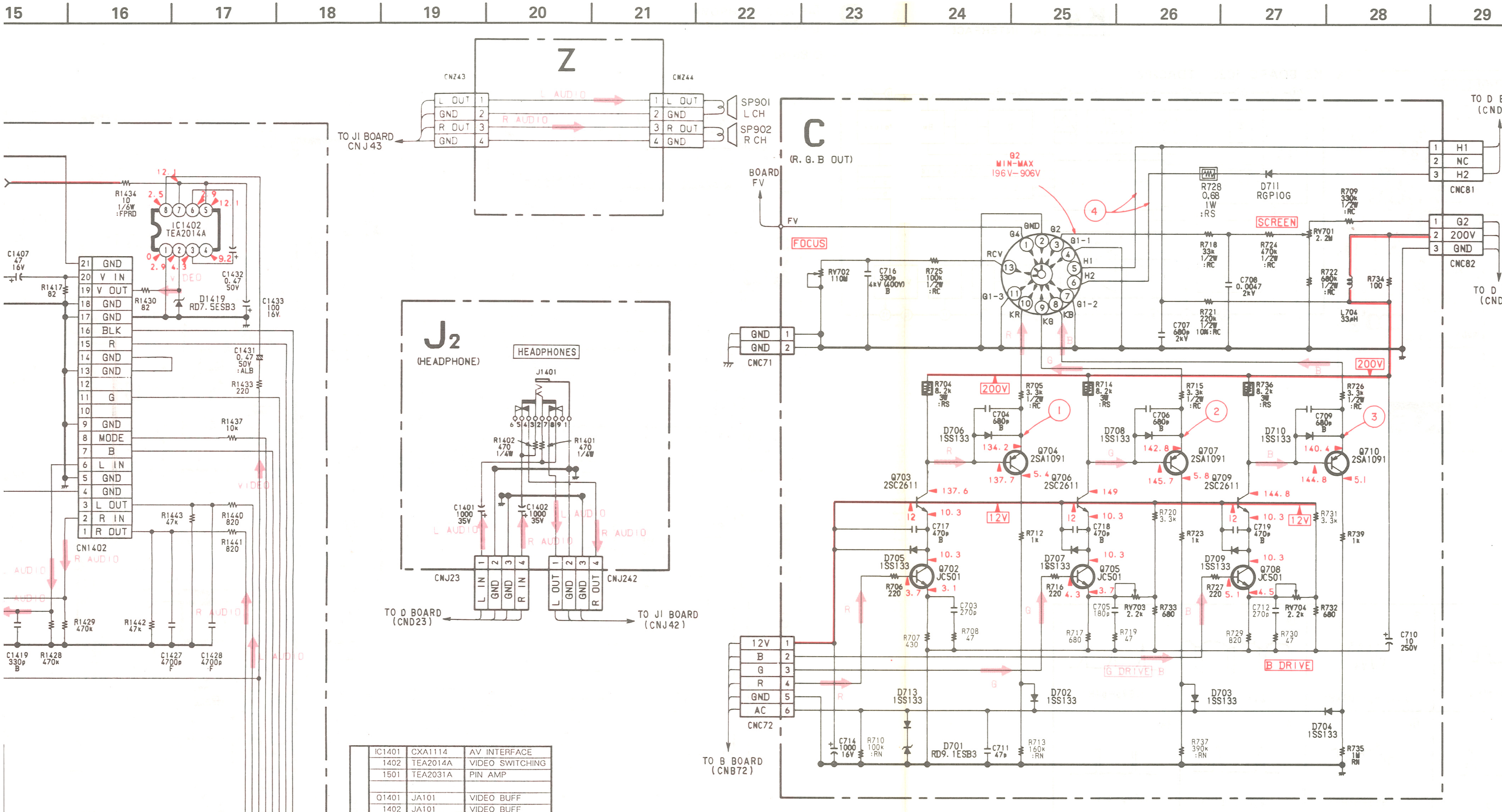
D BOARD IC601 TEA2164

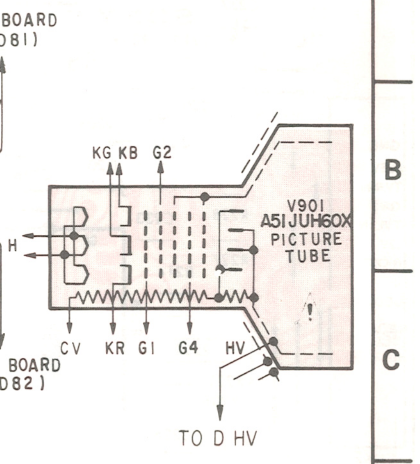

TONSTART PROGRAM
VLF OSCILL TON MAX MDD
REPEATED OVER ONNENT FLIP FLOP
VOLTAGE REF. INTERN. REGUL.
VCC COMPARATOR
STOP
FLIP. FLOP
START
IC RECOPY
+1 AMP.
DELAY
-1 AMP.
RC OSCILLATOR
SYNC. SWITCH
START STOP SHAPER
IC1 IC2 IC LIMIT
9
10
3
5
4
16
15
14
7
8
6
12
13
1
11
2

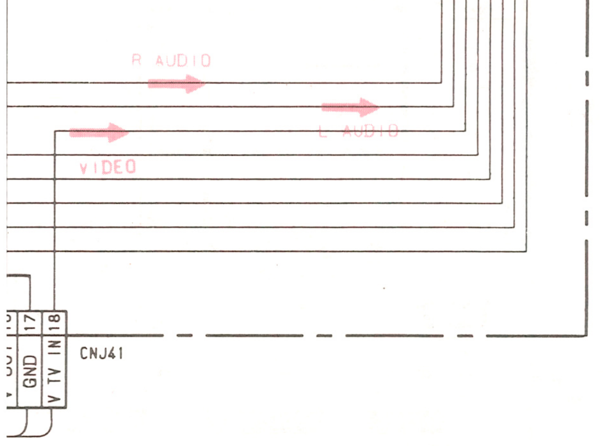

27V
E
200V
G2
R806
R808
C805
D5

NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.


J1
(INTERFACE)
TO J2 BOARD CNJ 242
CNJ142
SPL IN
GND
GND
SPR IN
TO Z BOARD CNZ43
CNJ43
L OUT
GND
R OUT
GND
TO KS BOARD CNK25
CNJ25
TO D BOARD CND45
CNJ45
M2
AV
GND
SCL
SDA
CNJ1401
CN1403
IC1501 TEA2031A
IC1401 CXA1114
IC1402 TEA2014
Q1401 JA101
Q1402 JA101
CN1402
PIN PHASE
P.COR
PIN AMP
CORNER COR
H.SIZE
V.SIZE
V.CENT
H.CENT
V ANG
L AUDIO
R AUDIO
VIDEO
12V
27V
CNJ51
TO D BOARD CND51
GND
GND
H CENT
12V
ABL 2
ABL 1
H PLS
GND
GND
V SIZE
V SIZE
V CENT
V SAW
V PAR
V ANG
27V
P OUT
GND
CNJ41
TO D BOARD CND41
L IN
R IN
GND AU
L OUT
R OUT
GND AU
R
G
B
GND
BLK
GND
12V
MODE
GND
V OUT
GND
V TV IN

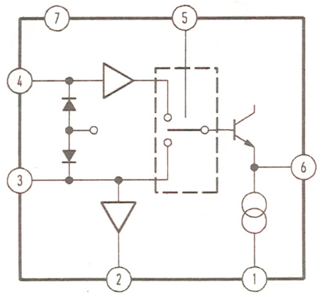

15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
Z
CNZ43
CNZ44
L OUT
GND
R OUT
GND
L AUDIO
R AUDIO
SP901 L CH
SP902 R CH
TO J1 BOARD CNJ43
IC1402 TEA2014A
R1434 10 1/6W :FPRD
C1407 47 16V
R1417 82
R1430 82
D1419 RD7.5ESB3
C1432 0.47 50V
C1433 100 16V
C1431 0.47 50V :ALB
R1433 220
R1437 10k
R1443 47k
R1440 820
R1441 820
R1429 470k
R1442 47k
R1428 470k
C1419 330p B
C1427 4700p F
C1428 4700p F
21 GND
20 V IN
19 V OUT
18 GND
17 GND
16 BLK
15 R
14 GND
13 GND
12
11 G
10
9 GND
8 MODE
7 B
6 L IN
5 GND
4 GND
3 L OUT
2 R IN
1 R OUT
CN1402
VIDEO
R AUDIO
L AUDIO
J2
(HEADPHONE)
HEADPHONES
J1401
R1402 470 1/4W
R1401 470 1/4W
C1401 1000 35V
C1402 1000 35V
L IN
GND
GND
R IN
L OUT
GND
GND
R OUT
CNJ23
CNJ242
TO D BOARD (CND23)
TO J1 BOARD (CNJ42)
C
(R. G. B OUT)
BOARD FV
FV
FOCUS
G2 MIN-MAX 196V–906V
SCREEN
RV702 110M
C716 330p 4kV (400V) B
R725 100k 1/2W :RC
R728 0.68 1W :RS
D711 RGP10G
R709 330k 1/2W :RC
R718 33k 1/2W :RC
R724 470k 1/2W :RC
RV701 2.2M
C708 0.0047 2kV
R722 680k 1/2W :RC
R734 100
R721 220k 1/2W 10W:RC
C707 680p 2kV
L704 33μH
GND
G4
G2
G1-1
G1-2
G1-3
H1
H2
RCV
KR
KG
KB
CNC71
200V
R704 8.2k 3W :RS
R705 3.3k 1/2W :RC
C704 680p B
D706 1SS133
Q704 2SA1091
Q703 2SC2611
134.2
137.7
5.4
137.6
R714 8.2k 3W :RS
R715 3.3k 1/2W :RC
C706 680p B
D708 1SS133
Q707 2SA1091
Q706 2SC2611
142.8
145.7
5.8
149
R736 8.2k 3W :RS
R726 3.3k 1/2W :RC
C709 680p B
D710 1SS133
Q710 2SA1091
Q709 2SC2611
140.4
144.8
5.1
12V
10.3
12
C717 470p B
C718 470p B
C719 470p B
R712 1k
R720 3.3k
R723 1k
R731 3.3k
R739 1k
D705 1SS133
Q702 JC501
R706 220
3.7
3.1
D707 1SS133
Q705 JC501
R716 220
4.3
D709 1SS133
Q708 JC501
R727 220
5.1
4.5
C703 270p
C705 180p
RV703 2.2k
R733 680
C712 270p
RV704 2.2k
R732 680
R707 430
R708 47
R717 680
R719 47
R729 820
R730 47
C710 10 250V
12V
B
G
R
GND
AC
CNC72
G DRIVE
B DRIVE
D713 1SS133
D702 1SS133
D703 1SS133
D704 1SS133
C714 1000 16V
R710 100k :RN
D701 RD9.1ESB3
C711 47p
R713 160k :RN
R737 390k :RN
R735 1M RN
TO B BOARD (CNB72)
TO D BOARD (CND81)
H1
NC
H2
CNC81
G2
200V
GND
CNC82
TO D BOARD (CND82)
①
②
③
④


KG KB G2
V901 A51JUH60X PICTURE TUBE
H
CV KR G1 G4 HV
TO D HV
30
31
A
B
C

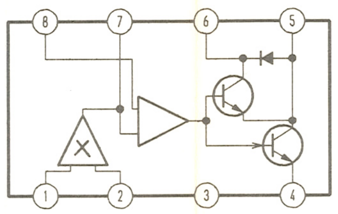

R AUDIO
L AUDIO
VIDEO
GND
TV
IN
CNJ41

J1	IC1401	CXA1114	AV INTERFACE
	1402	TEA2014A	VIDEO SWITCHING
	1501	TEA2031A	PIN AMP
	Q1401	JA101	VIDEO BUFF
	1402	JA101	VIDEO BUFF
	D1401	RD7.5ES-B3	PROTECT
	1403	RD7.5ES-B3	PROTECT
	1404	RD7.5ES-B3	PROTECT
	1405	RD7.5ES-B3	PROTECT
	1406	RD7.5ES-B3	PROTECT
	1407	RD10ES-B3	PROTECT
	1408	RD9.1ES-B3	9V REG
	1409	RD9.1ES-B3	PROTECT
	1410	RD9.1ES-B3	PROTECT
	1415	RD7.5ES-B3	PROTECT
	1418	RD7.5ES-B3	PROTECT
	1419	RD7.5ES-B3	PROTECT
	1420	RD7.5ES-B3	PROTECT
	1501	1SS133	PROTECT
	1502	1SS133	DC STOP
	1503	1SS133	CORNER CORRECT
	1504	1SS133	H.P SLICER
	1505	MC931	PROTECT
	1506	RD36ES-B4	PROTECT
	1507	1SS133	PROTECT

J1 BOARD IC1402 TEA2014A

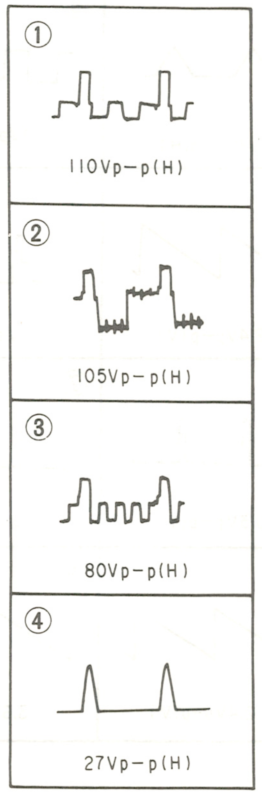


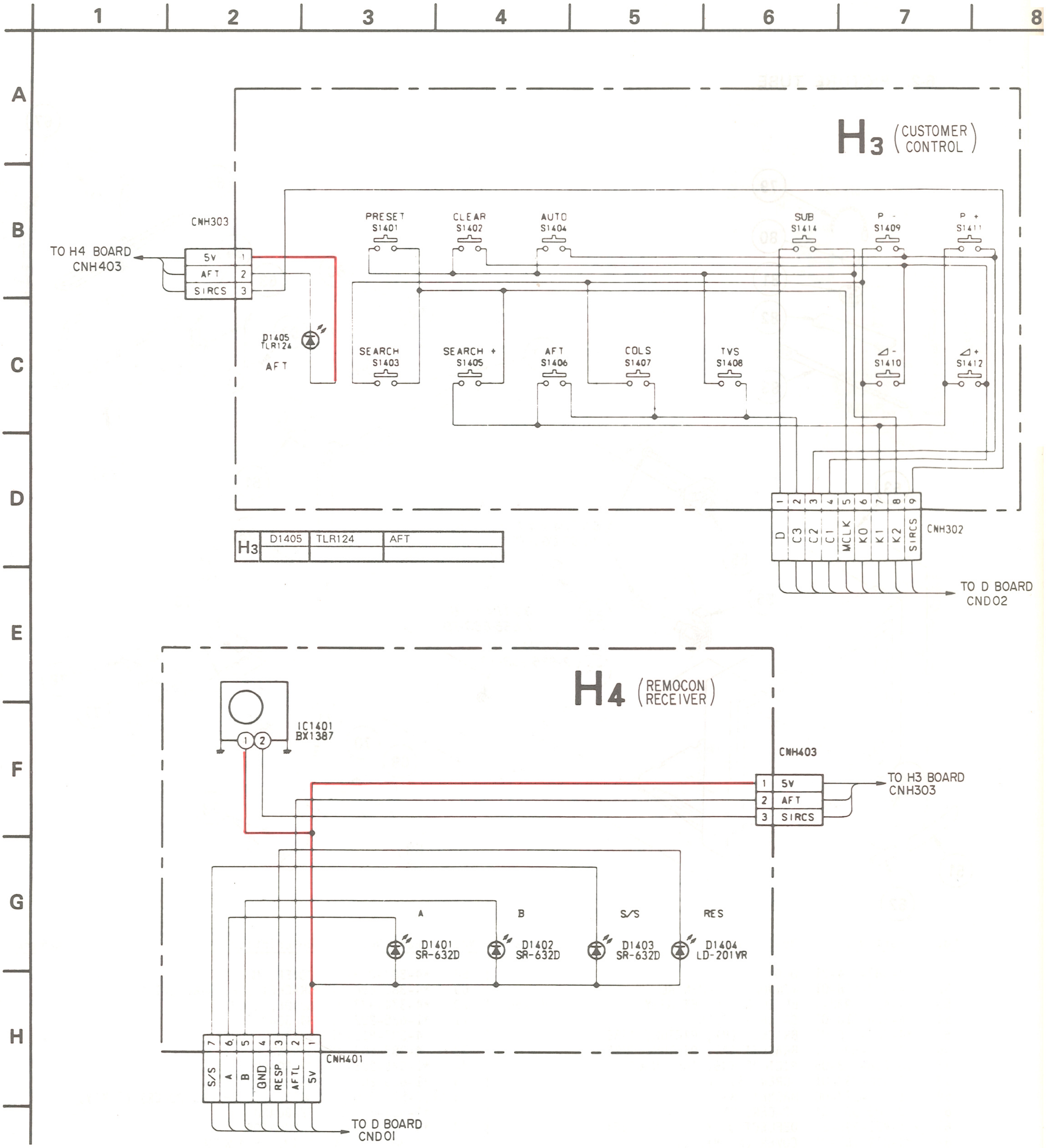
J1 BOARD IC1501 TEA2031A



C	Q702	JC501	R AMP
	703	2SC2611	R OUT
	704	2SA1091	R AC AMP
	705	JC501	G AMP
	706	2SC2611	G OUT
	707	2SA1091	G AC AMP
	708	JC501	B AMP
	709	2SC2611	B OUT
	710	2SA1091	B AC AMP
	D701	RD9.1ES-B3	PROTECT-1
	702	1SS133	AC MIX-1
	703	1SS133	AC MIX-2
	704	1SS133	AC MIX-3
	705	1SS133	PROTECT-2
	706	1SS133	PROTECT-3
	707	1SS133	PROTECT-4
	708	1SS133	PROTECT-5
	709	1SS133	PROTECT-6
	710	1SS133	PROTECT-7
	711	RGP10GRG23	PROTECT-8
	713	1SS133	PROTECT-9

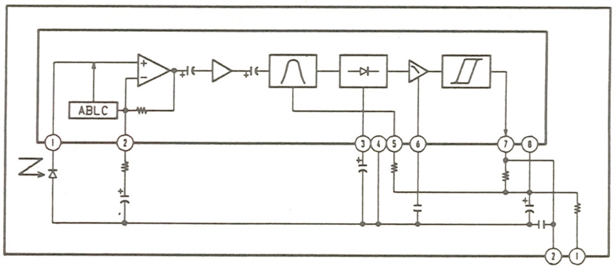
● C BOARD WAVEFORM




1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
H3 (CUSTOMER CONTROL)
CNH303
TO H4 BOARD CNH403
5V 1
AFT 2
SIRCS 3
D1405 TLR124
AFT
PRESET S1401
CLEAR S1402
AUTO S1404
SUB S1414
P - S1409
P + S1411
SEARCH S1403
SEARCH + S1405
AFT S1406
COLS S1407
TVS S1408
◿ - S1410
◿ + S1412
1 2 3 4 5 6 7 8 9
D C3 C2 C1 MCLK K0 K1 K2 SIRCS
CNH302
TO D BOARD CND02
H4 (REMOCON RECEIVER)
IC1401 BX1387
CNH403
1 5V
2 AFT
3 SIRCS
TO H3 BOARD CNH303
A
B
S/S
RES
D1401 SR-632D
D1402 SR-632D
D1403 SR-632D
D1404 LD-201VR
7 6 5 4 3 2 1
S/S A B GND RESP AFTL 5V
CNH401
TO D BOARD CND01

H3	D1405	TLR124	AFT

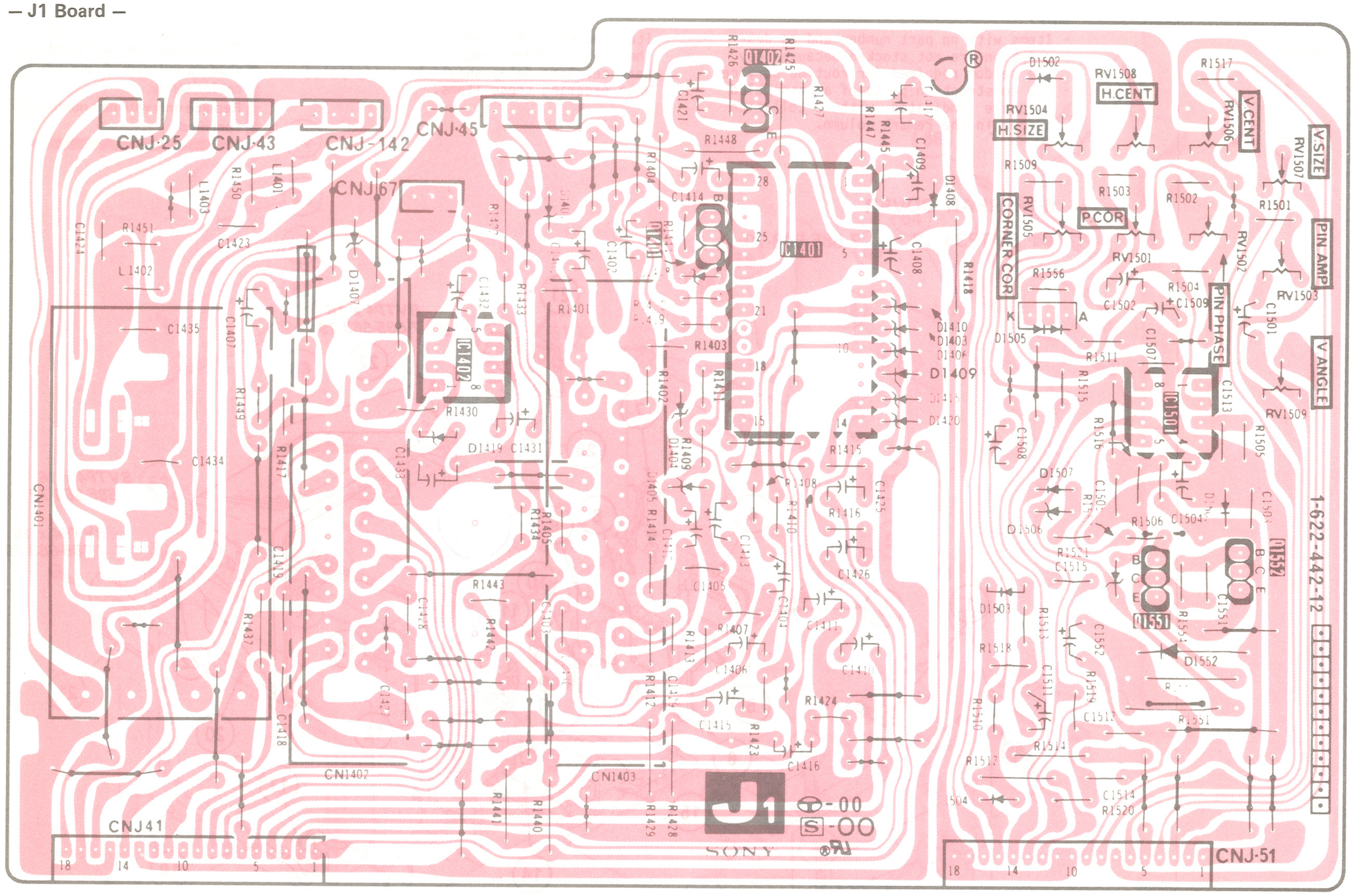
H4 BOARD IC1401 BX-1387


ABLC
1
2
3
4
5
6
7
8
2
1

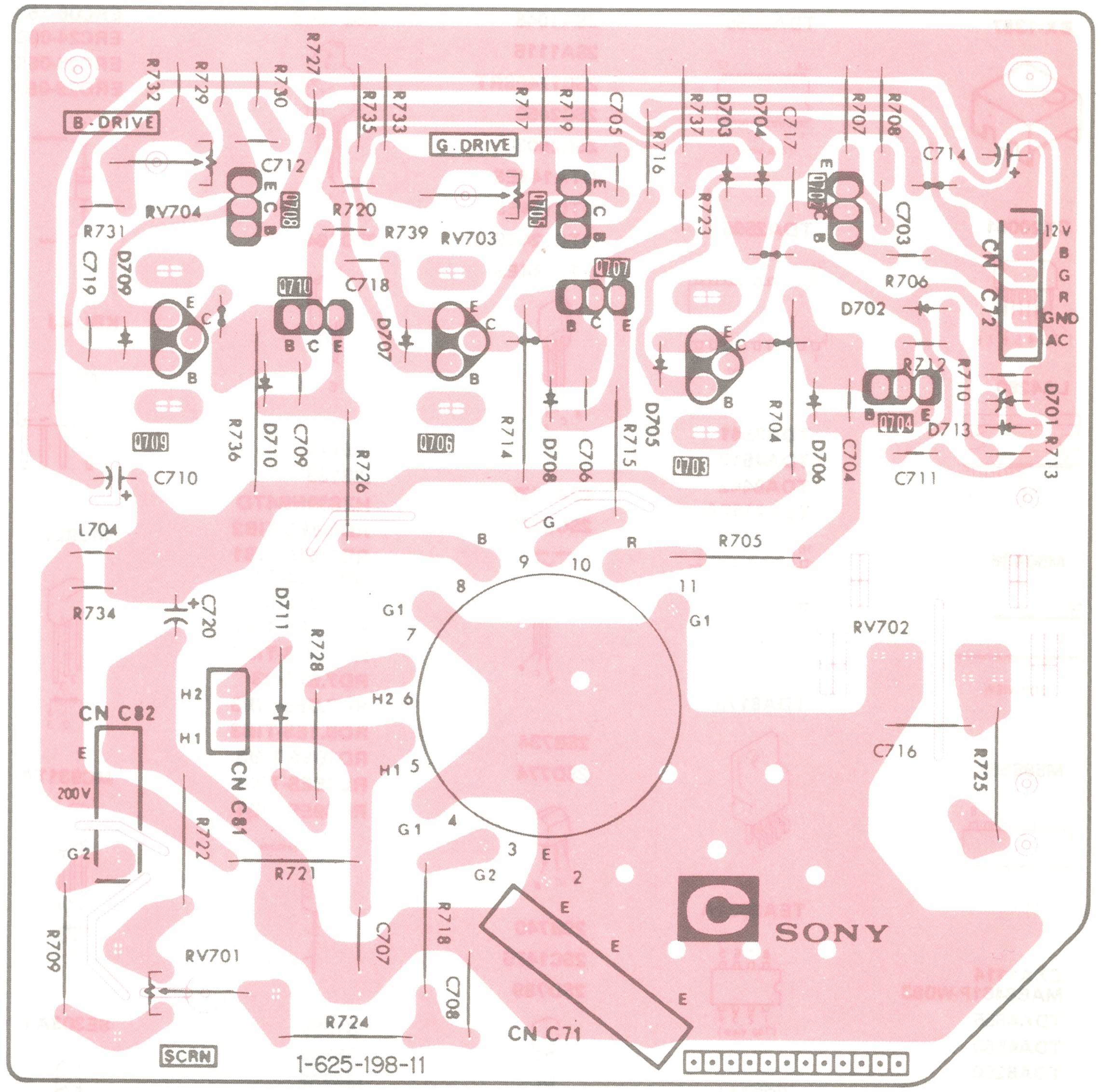
H4	IC1401	BX1387	REMOCON RECIEVER
	D1401	SR632D	A
	1402	SR632D	B
	1403	SR632D	SPACE SOUND
	1404	SR632D	RESP

J1 [INTERFACE] **H3** [CUSTOMER CONTROL] **H4** [REMOCON RECEIVER] **J2** [HEADPHONE JACK] **Z** [CONNECTOR] **C** [R·G·B OUT]

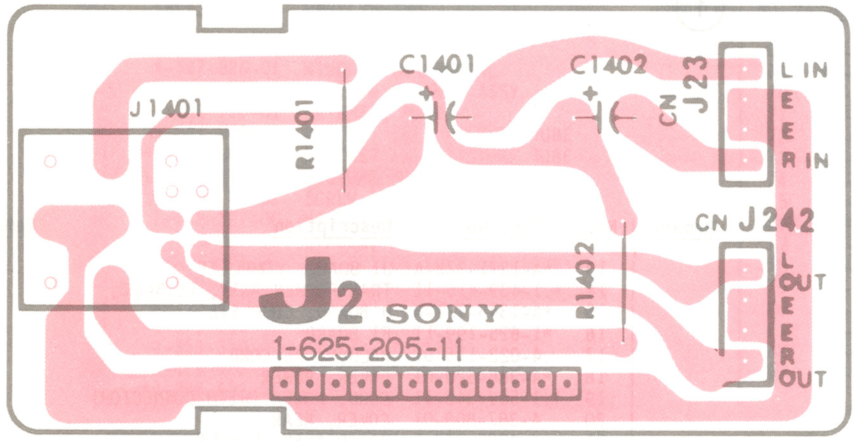
— J1 Board —


CNJ-25
CNJ-43
CNJ-142
CNJ-45
CNJ-67
CNJ41
CNJ-51
CN1401
CN1402
CN1403
IC1401
IC1402
IC1501
Q1402
Q1551
Q1552
H.SIZE
H.CENT
V.CENT
V.SIZE
P.COR
CORNER.COR
PIN AMP
PIN PHASE
V.ANGLE
RV1501
RV1502
RV1503
RV1504
RV1505
RV1506
RV1507
RV1508
RV1509
D1409
1-622-442-12
J1
S-00
SONY

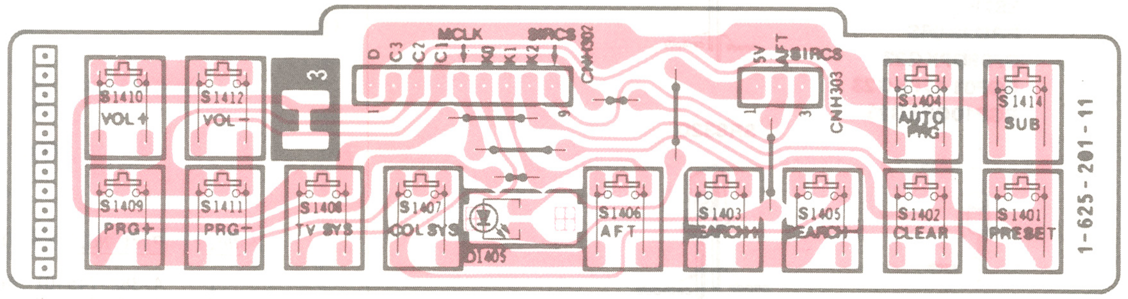
— C Board —


B-DRIVE
G.DRIVE
RV701
RV702
RV703
RV704
Q703
Q704
Q705
Q706
Q707
Q708
Q709
Q710
CN C72
12V
B
G
R
GND
AC
CN C82
CN C81
CN C71
200V
SCRN
1-625-198-11
C
SONY

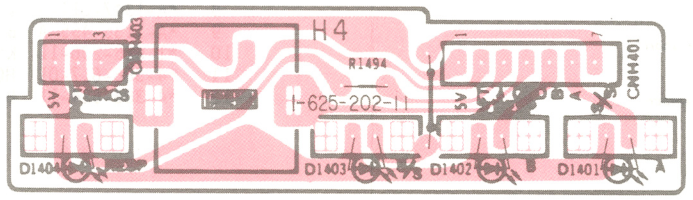
— J2 Board —


J1401
C1401
C1402
R1401
R1402
CN J23
CN J242
L IN
E
E
R IN
L OUT
E
E
R OUT
J2
SONY
1-625-205-11

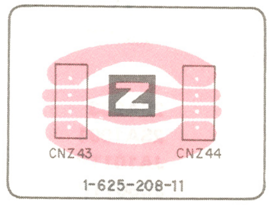
— H3 Board —


MCLK
SIRCS
CNH302
CNH303
H3
S1410 VOL+
S1412 VOL-
S1409 PRG+
S1411 PRG-
S1408 TV SYS
S1407 COL SYS
D1405
S1406 AFT
S1403 SEARCH+
S1405 SEARCH-
S1404 AUTO PRG
S1402 CLEAR
S1414 SUB
S1401 PRESET
1-625-201-11

— H4 Board —

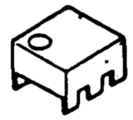

H4
CNH403
CNH401
R1494
1-625-202-11
D1404
D1403
D1402
D1401

— Z Board —

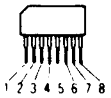

Z
CNZ43
CNZ44
1-625-208-11

5-5. SEMICONDUCTORS

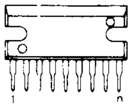
BX-1387



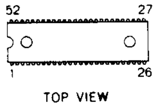
CX20061



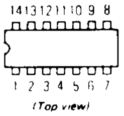
LA4280



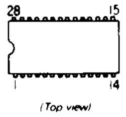
M50436


52
27
1
26
TOP VIEW

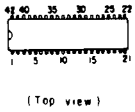
M58655P


14 13 12 11 10 9 8
1 2 3 4 5 6 7
(Top view)

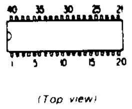
CXA1114
MAB8461P-W083
TDA4555
TDA4580
TDA6200
TDA6600
TEA2028A
SDA5231
μPD4364CX015L


28
15
1
14
(Top view)

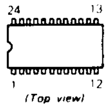
MB88503H


42 40 35 30 25 22
1 5 10 15 21
(Top view)

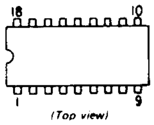
SDA5241


40 35 30 25 21
1 5 10 15 20
(Top view)

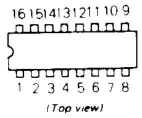
TDA2556


24
13
1
12
(Top view)

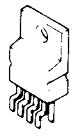
TDA2595


18
10
1
9
(Top view)

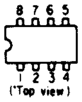
TDA3541
TDA4510
TDA8442
TEA2162A


16 15 14 13 12 11 10 9
1 2 3 4 5 6 7 8
(Top view)

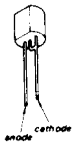
TDA8170



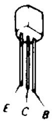
TEA2031A


8 7 6 5
1 2 3 4
(Top view)

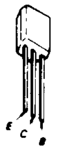
μPC574J


cathode
anode

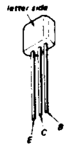
2SA933
2SA1091
JA101TP
JC501TP



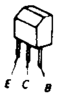
2SA1048
2SA1115
2SC1740SRT
2SC2458
2SC2603
DTA144ES
DTC114ES
DTC124ES
DTC144ES



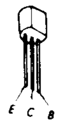
2SA1175
2SC2785


letter side
E C B

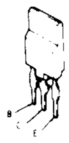
2SB734
2SD774



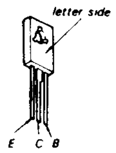
2SB740
2SC1475
2SD789



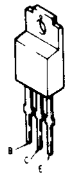
2SB1185
2SD1761



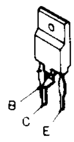
2SC2611
2SC2688


letter side
E C B

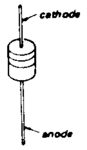
2SD1548



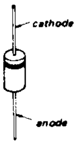
2SD1941



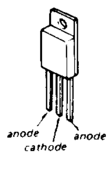
1SS119
1SS133
HZS39NB4TD
RD3.6ES-TIB2
RD3.9ES-TIB1
RD4.7ES-B1
RD5.6ES-B2
RD6.2ES-TIB2
RD6.8ES-TIB2
RD7.5ES-B3
RD7.5ES-TIB3
RD9.1ES-TIB3
RD10ES-TIB3
RD15ES-TIB1
RD39ES-TIB4


cathode
anode

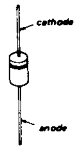
1S1555
1SS168
1SS238
10E2
ES1F
ERD28-06S
GP08DPKG23
RGP01-17PKG23
RGP10GPKG23


cathode
anode

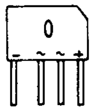
CTU-12S


anode
anode
cathode

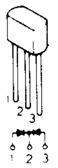
ERC06-15S
ERC24-06S
ERC25-06S
ERD29-08J


cathode
anode

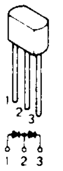
KBU-4J



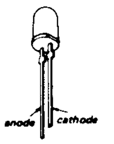
MC921



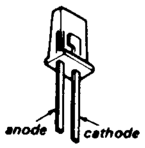
MC931TP



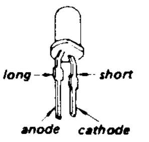
SE303AY


anode
cathode

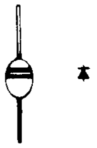
SR632D


anode
cathode

TLR124


long
short
anode
cathode

V19E



SECTION 6

EXPLODED VIEWS

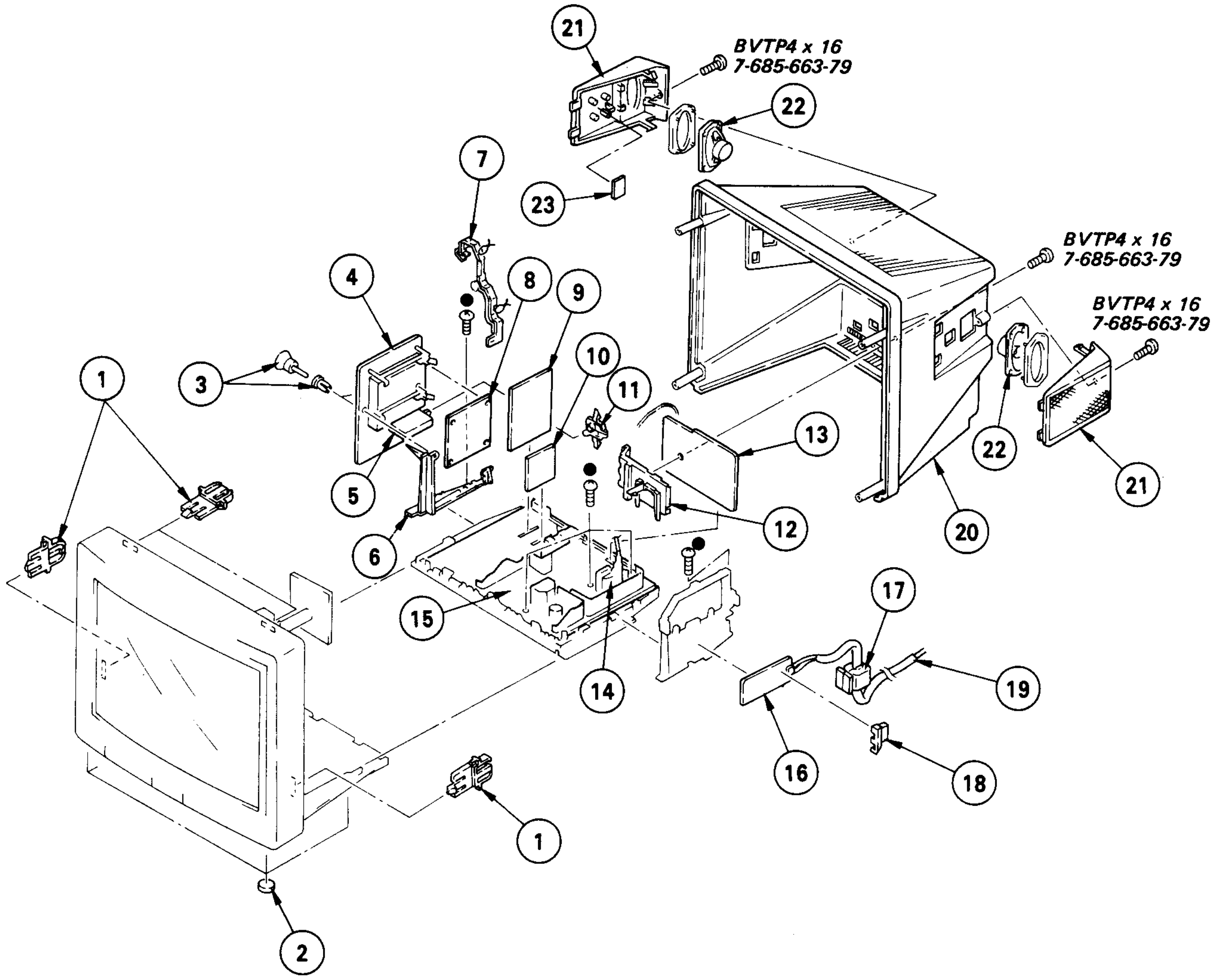
NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. REAR COVER

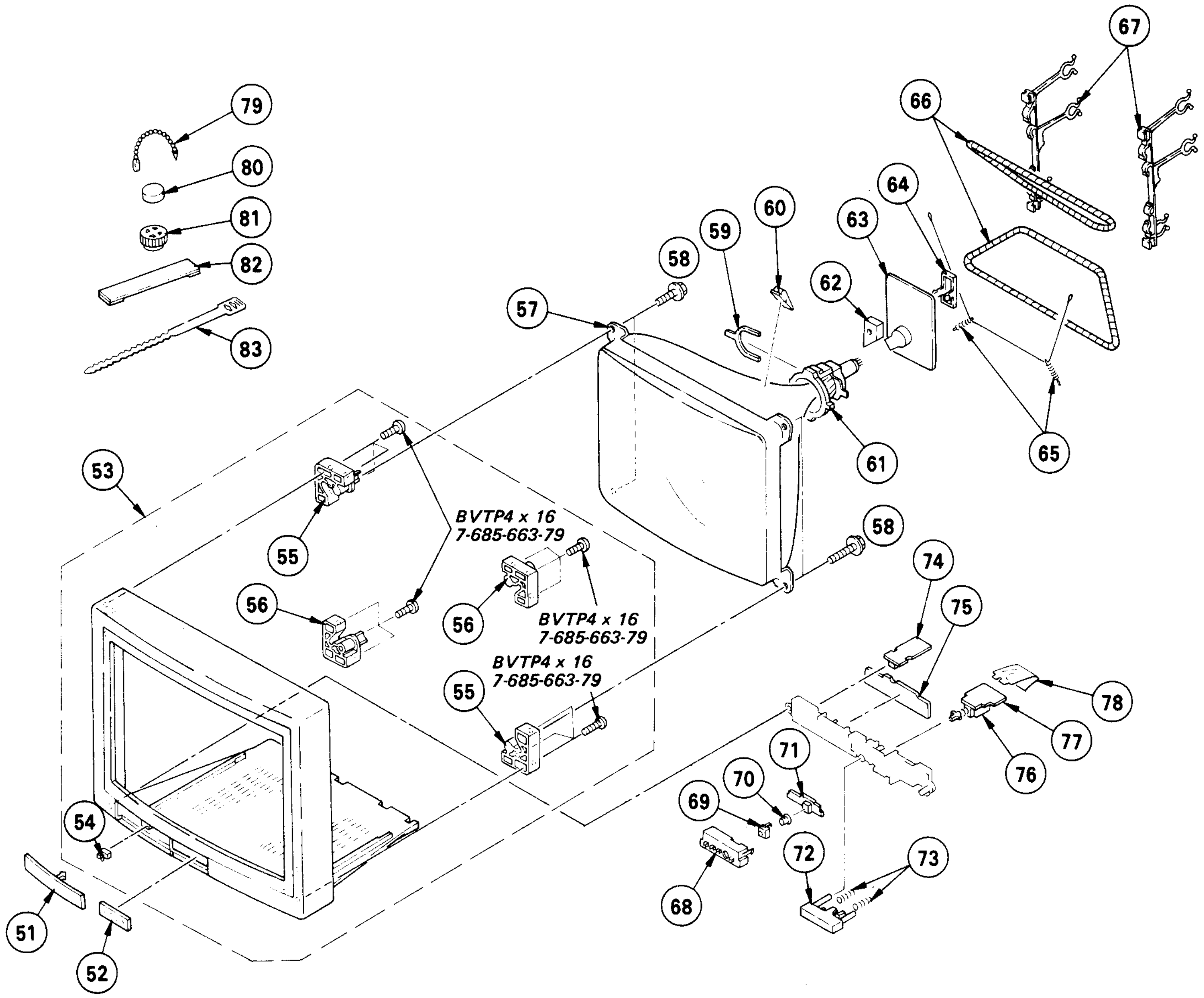
●: BVTP3 x 12 7-685-648-79



21
BVTP4 x 16
7-685-663-79
22
7
23
BVTP4 x 16
7-685-663-79
BVTP4 x 16
7-685-663-79
4
8
9
10
11
3
1
5
13
12
6
22
21
20
15
14
17
19
16
18
1
2

No.	Part No.	Description	Remark
1	4-382-745-01	HOLDER, RC	
2	4-809-913-XX	FOOT, F	
3	4-386-618-01	RIVET, T TYPE	
4	*A-1296-317-A	A BOARD, COMPLETE	
5	⚠.1-463-881-11	TUNER, ET (UV-617)	
6	*4-386-629-11	BRACKET, A	
7	*4-386-628-11	SUPPORTER, PC BOARD	
8	*A-1347-014-A	V BOARD, COMPLETE	
9	*A-1135-455-A	B BOARD, COMPLETE	
10	*1-625-206-11	KS BOARD	
11	*4-386-617-01	HOLDER, TERMINAL	
12	*4-386-624-11	BRACKET, J	
13	*A-1371-373-A	J1 BOARD, COMPLETE	
14	⚠.1-439-416-11	TRANSFORMER ASSY, FLYBACK	
15	*A-1345-721-A	D BOARD, COMPLETE	
16	*1-625-199-11	F1 BOARD	
17	.4-022-115-01	HOLDER, AC CORD	
18	*4-386-620-01	COVER, POWER	
19	⚠.1-559-346-11	CORD, POWER (WITH CONNECTOR)	
20	4-387-808-01	COVER, REAR	
21	X-4385-930-1	BOARD ASSY, BAFFLE	
22	1-503-642-21	SPEAKER	
23	*1-625-208-11	Z BOARD	

6-2. PICTURE TUBE



67
79
80
66
64
81
60
59
63
82
58
62
57
83
61
65
53
BVTP4 x 16
7-685-663-79
55
58
56
56
BVTP4 x 16
7-685-663-79
74
BVTP4 x 16
7-685-663-79
75
55
78
71
77
70
76
69
54
72
73
68
51
52

No.	Part No.	Description	Remark
51	4-387-814-21	DOOR	
52	4-387-826-01	WINDOW, ORNAMENTAL	
53	X-4385-932-1	BEZEL & CABINET ASSY	54-56
54	4-386-710-01	CATCHER, PUSH	
55	*4-387-806-01	BRACKET (B), PICTURE TUBE	
56	*4-387-805-01	BRACKET (A), PICTURE TUBE	
57	⚠.8-738-753-05	PICTURE TUBE (A51JUH60X)	
58	4-382-733-01	SCREW (S), PT	
59	1-452-277-00	MAGNET, BMC	
60	3-703-961-01	SPACER, DY	
61	⚠.1-451-295-21	DEFLECTION YOKE (SY-153E)	
62	*4-379-167-01	COVER (MAIN), CV	
63	*A-1330-850-A	C BOARD, COMPLETE	
64	*4-379-160-01	COVER (REAR LID), CV	
65	4-369-318-00	SPRING, TENSION	
66	⚠.1-426-326-11	COIL, DEMAGNETIZATION	
67	*4-386-622-01	BAND, DGC	
68	*4-387-813-01	COVER, H2	
69	*4-381-686-01	BRACKET (B), BAR, OPTICAL	
70	*4-374-987-01	GUIDE, LIGHT	
71	*1-625-202-11	H4 BOARD	
72	4-387-812-01	BUTTON, POWER	
73	4-387-809-01	SPRING	
74	*1-625-205-11	J2 BOARD	
75	*1-625-201-11	H3 BOARD	
76	⚠.1-571-410-11	SWITCH, PUSH (AC POWER) (1 KEY)	
77	*1-625-200-11	F2 BOARD	
78	*4-387-804-01	INSULATOR	
79	4-308-870-00	CLIP, LEAD WIRE	
80	1-452-032-00	MAGNET, DISK; 10MM ø	
81	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ø	
82	X-4309-608-0	PERMALLOY ASSY, CONVERGENCE	
83	3-701-007-00	BAND, BINDING	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

SECTION 7

ELECTRICAL PARTS LIST

B

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

Note: In this parts list, the mounting diagram is for a different product.
Therefore, an excess of parts is listed.

Ref.No.	Part No.	Description				Remark
	*A-1135-455-A	B BOARD, COMPLETE *****************				

CAPACITOR

Ref.No.	Part No.	Description				Remark
C301	1-110-179-81	MYLAR	0.22MF	10%	100V	
C302	1-110-179-81	MYLAR	0.22MF	10%	100V	
C303	1-126-101-11	ELECT	100MF	20%	16V	
C304	1-110-179-81	MYLAR	0.22MF	10%	100V	
C305	1-124-119-00	ELECT	330MF	20%	16V	
C306	1-124-902-00	ELECT	0.47MF	20%	50V	
C307	1-124-902-00	ELECT	0.47MF	20%	50V	
C308	1-124-902-00	ELECT	0.47MF	20%	50V	
C309	1-124-902-00	ELECT	0.47MF	20%	50V	
C310	1-110-175-81	MYLAR	0.1MF	10%	100V	
C311	1-110-175-81	MYLAR	0.1MF	10%	100V	
C312	1-124-902-00	ELECT	0.47MF	20%	50V	
C313	1-124-902-00	ELECT	0.47MF	20%	50V	
C314	1-124-902-00	ELECT	0.47MF	20%	50V	
C315	1-124-499-11	ELECT	1MF	20%	50V	
C319	1-124-477-11	ELECT	47MF	20%	16V	
C321	1-102-980-00	CERAMIC	270PF	5%	50V	
C322	1-101-888-00	CERAMIC	68PF	5%	50V	
C325	1-124-477-11	ELECT	47MF	20%	16V	
C326	1-101-004-00	CERAMIC	0.01MF		50V	
C327	1-101-004-00	CERAMIC	0.01MF		50V	
C331	1-124-963-11	ELECT	33MF	20%	16V	
C332	1-124-119-00	ELECT	330MF	20%	16V	
C333	1-101-005-00	CERAMIC	0.022MF		50V	
C334	1-101-884-00	CERAMIC	56PF	5%	50V	
C335	1-101-006-00	CERAMIC	0.047MF		50V	
C336	1-110-190-81	MYLAR	0.01MF	10%	400V	
C337	1-101-004-00	CERAMIC	0.01MF		50V	
C338	1-101-888-00	CERAMIC	68PF	5%	50V	
C339	1-102-735-00	CERAMIC	120PF	5%	50V	
C340	1-102-953-00	CERAMIC	18PF	5%	50V	
C341	1-102-978-00	CERAMIC	220PF	5%	50V	
C342	1-102-953-00	CERAMIC	18PF	5%	50V	
C343	1-102-735-00	CERAMIC	120PF	5%	50V	
C344	1-101-888-00	CERAMIC	68PF	5%	50V	
C345	1-102-978-00	CERAMIC	220PF	5%	50V	
C346	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C347	1-124-499-11	ELECT	1MF	20%	50V	
C349	1-136-173-00	FILM	0.47MF	5%	50V	
C350	1-110-171-81	MYLAR	0.047MF	10%	100V	
C352	1-110-182-81	MYLAR	0.022MF	10%	250V	
C353	1-102-506-00	CERAMIC	7PF	0.5PF	50V	
C354	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C355	1-102-679-00	CERAMIC	120PF	5%	50V	
C360	1-101-004-00	CERAMIC	0.01MF		50V	
C361	1-101-004-00	CERAMIC	0.01MF		50V	
C364	1-101-361-00	CERAMIC	150PF	5%	50V	
C365	1-124-477-11	ELECT	47MF	20%	16V	

Ref.No.	Part No.	Description				Remark
C366	1-124-477-11	ELECT	47MF	20%	16V	
C367	1-101-004-00	CERAMIC	0.01MF		50V	
C368	1-101-880-00	CERAMIC	47PF	5%	50V	
C381	1-124-902-00	ELECT	0.47MF	20%	50V	
C382	1-124-927-11	ELECT	4.7MF	20%	50V	
C384	1-124-477-11	ELECT	47MF	20%	16V	
C385	1-124-927-11	ELECT	4.7MF	20%	50V	
C387	1-124-902-00	ELECT	0.47MF	20%	50V	
C1311	1-101-884-00	CERAMIC	56PF	5%	50V	

CONNECTOR

CNB31	*1-562-370-21	CONNECTOR, BOARD TO BOARD 18P
CNB72	*1-564-895-11	PLUG, CONNECTOR 6P
CNB93	*1-560-278-00	PLUG, CONNECTOR 6P

TRIMMER

CT332	1-141-181-11	CAP, TRIMMER

DIODE

D301	8-719-911-19	DIODE 1SS119
D302	8-719-911-19	DIODE 1SS119
D303	8-719-911-19	DIODE 1SS119
D304	8-719-911-19	DIODE 1SS119
D305	8-719-911-19	DIODE 1SS119
D307	8-719-110-23	DIODE RD11ES-B3
D309	8-719-911-19	DIODE 1SS119

DELAY LINE

DL331	1-415-122-00	DELAY LINE

IC

IC301	8-759-923-81	IC TDA4580
IC302	8-759-941-98	IC TDA8442
IC331	8-759-947-20	IC TDA4555-V8

COIL

L301	1-410-868-21	INDUCTOR	4.7UH
L302	1-410-868-21	INDUCTOR	4.7UH
L303	1-410-469-21	INDUCTOR	8.2UH
L304	1-410-470-11	INDUCTOR	10UH
L331	1-410-469-21	INDUCTOR	8.2UH
L332	1-404-539-11	COIL	
L333	1-404-554-11	COIL	
L334	1-404-554-11	COIL	
L335	1-404-554-11	COIL	
L339	1-410-868-21	INDUCTOR	4.7UH

B **Z** **F2**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

TRANSISTOR

Ref.No.	Part No.	Description	Remark
Q302	8-729-178-54	TRANSISTOR 2SC2785	
Q303	8-729-178-54	TRANSISTOR 2SC2785	
Q305	8-729-900-36	TRANSISTOR DTC124ES	
Q311	8-729-178-54	TRANSISTOR 2SC2785	
Q312	8-729-178-54	TRANSISTOR 2SC2785	
Q313	8-729-178-54	TRANSISTOR 2SC2785	
Q316	8-729-178-54	TRANSISTOR 2SC2785	
Q334	8-729-178-54	TRANSISTOR 2SC2785	
Q335	8-729-178-54	TRANSISTOR 2SC2785	
Q336	8-729-178-54	TRANSISTOR 2SC2785	
Q381	8-729-900-36	TRANSISTOR DTC124ES	
Q382	8-729-178-54	TRANSISTOR 2SC2785	
Q1306	8-729-117-54	TRANSISTOR 2SA1175	

RESISTOR

Ref.No.	Part No.	Description				Remark
R301	1-249-409-11	CARBON	220	5%	1/4W	
R302	1-249-409-11	CARBON	220	5%	1/4W	
R303	1-249-409-11	CARBON	220	5%	1/4W	
R304	1-249-409-11	CARBON	220	5%	1/4W	
R305	1-249-421-11	CARBON	2.2K	5%	1/4W	
R307	1-249-441-11	CARBON	100K	5%	1/4W	
R308	1-249-414-11	CARBON	560	5%	1/4W	
R309	1-249-405-11	CARBON	100	5%	1/4W	
R310	1-249-405-11	CARBON	100	5%	1/4W	
R311	1-249-405-11	CARBON	100	5%	1/4W	
R312	1-249-409-11	CARBON	220	5%	1/4W	
R313	1-249-433-11	CARBON	22K	5%	1/4W	
R314	1-249-413-11	CARBON	470	5%	1/4W	
R315	1-249-407-11	CARBON	150	5%	1/4W	
R316	1-249-407-11	CARBON	150	5%	1/4W	
R317	1-249-407-11	CARBON	150	5%	1/4W	
R318	1-249-429-11	CARBON	10K	5%	1/4W	
R319	1-249-409-11	CARBON	220	5%	1/4W	
R320	1-249-417-11	CARBON	1K	5%	1/4W	
R321	1-249-421-11	CARBON	2.2K	5%	1/4W	
R322	1-249-420-11	CARBON	1.8K	5%	1/4W	
R323	1-249-421-11	CARBON	2.2K	5%	1/4W	
R324	1-249-426-11	CARBON	5.6K	5%	1/4W	
R325	1-249-429-11	CARBON	10K	5%	1/4W	
R326	1-249-419-11	CARBON	1.5K	5%	1/4W	
R327	1-249-427-11	CARBON	6.8K	5%	1/4W	
R328	1-249-397-11	CARBON	22	5%	1/4W	
R329	1-249-397-11	CARBON	22	5%	1/4W	
R330	1-249-397-11	CARBON	22	5%	1/4W	
R331	1-249-418-11	CARBON	1.2K	5%	1/4W	
R332	1-249-401-11	CARBON	47	5%	1/4W	
R333	1-249-412-11	CARBON	390	5%	1/4W	
R334	1-249-408-11	CARBON	180	5%	1/4W	
R335	1-249-415-11	CARBON	680	5%	1/4W	
R336	1-249-418-11	CARBON	1.2K	5%	1/4W	
R337	1-215-438-00	CARBON	5.1K	5%	1/4W	
R338	1-249-429-11	CARBON	10K	5%	1/4W	
R344	1-249-437-11	CARBON	47K	5%	1/4W	
R346	1-249-419-11	CARBON	1.5K	5%	1/4W	
R347	1-249-429-11	CARBON	10K	5%	1/4W	
R348	1-249-437-11	CARBON	47K	5%	1/4W	
R349	1-249-415-11	CARBON	680	5%	1/4W	
R350	1-249-415-11	CARBON	680	5%	1/4W	
R351	1-249-409-11	CARBON	220	5%	1/4W	
R352	1-247-891-00	CARBON	330K	5%	1/4W	
R353	1-247-891-00	CARBON	330K	5%	1/4W	
R356	1-249-427-11	CARBON	6.8K	5%	1/4W	
R357	1-249-409-11	CARBON	220	5%	1/4W	
R358	1-249-409-11	CARBON	220	5%	1/4W	
R361	1-249-418-11	CARBON	1.2K	5%	1/4W	
R362	1-249-421-11	CARBON	2.2K	5%	1/4W	
R363	1-249-418-11	CARBON	1.2K	5%	1/4W	
R367	1-249-409-11	CARBON	220	5%	1/4W	
R368	1-249-417-11	CARBON	1K	5%	1/4W	
R369	1-249-417-11	CARBON	1K	5%	1/4W	
R370	1-249-418-11	CARBON	1.2K	5%	1/4W	
R371	1-249-417-11	CARBON	1K	5%	1/4W	
R376	1-249-429-11	CARBON	10K	5%	1/4W	
R378	1-249-441-11	CARBON	100K	5%	1/4W	
R379	1-249-441-11	CARBON	100K	5%	1/4W	
R380	1-249-426-11	CARBON	5.6K	5%	1/4W	
R381	1-249-439-11	CARBON	68K	5%	1/4W	
R382	1-247-885-00	CARBON	180K	5%	1/4W	
R383	1-215-483-00	CARBON	390K	5%	1/4W	
R385	1-249-435-11	CARBON	33K	5%	1/4W	
R389	1-247-883-00	CARBON	150K	5%	1/4W	
R391	1-249-404-00	CARBON	82	5%	1/4W	
R392	1-249-402-11	CARBON	56	5%	1/4W	
R393	1-249-402-11	CARBON	56	5%	1/4W	
R394	1-249-402-11	CARBON	56	5%	1/4W	
R398	1-249-433-11	CARBON	22K	5%	1/4W	
R1324	1-249-419-11	CARBON	1.5K	5%	1/4W	

VARIABLE RESISTOR

Ref.No.	Part No.	Description	Remark
RV331	1-230-504-11	RES, ADJ, CARBON 220	

TRANSFORMER

Ref.No.	Part No.	Description	Remark
T331	1-404-584-11	COIL	

CRYSTAL

Ref.No.	Part No.	Description	Remark
X332	1-567-131-00	OSCILLATOR, CRYSTAL	

YC MODULE

Ref.No.	Part No.	Description	Remark
YCM301	1-235-753-21	YC MODULE	

****

*1-625-208-11 Z BOARD
****

CONNECTOR

Ref.No.	Part No.	Description	Remark
CNZ43	*1-564-881-11	PLUG, CONNECTOR 4P	
CNZ44	*1-564-881-11	PLUG, CONNECTOR 4P	

****

*1-625-200-11 F2 BOARD
****

CONNECTOR

Ref.No.	Part No.	Description	Remark
CNF262	*1-566-664-11	PIN, CONNECTOR 4P	

SWITCH

Ref.No.	Part No.	Description	Remark
S1701⚠	1-571-410-11	SWITCH, PUSH (AC POWER)(1 KEY)	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description				Remark
	*1-625-199-11	F1 BOARD ********				

CAPACITOR

Ref.No.	Part No.	Description				Remark
C1601⚠	1-136-518-11	FILM	0.33MF	20%	300V	
C1602⚠	1-136-519-11	FILM	0.47MF	20%	300V	
C1603⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
C1604⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
C1605⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
C1606⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	

CONNECTOR

Ref.No.	Part No.	Description	Remark
CNF61	*1-566-664-11	PIN, CONNECTOR 4P	
CNF64	*1-506-349-21	3P PLUG (L)	
CNF65	*1-508-765-00	3P PLUG (M)	
CNF66	*1-508-786-00	2P PLUG (M)	
CNF67	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)	
CNF162	*1-506-347-21	4P PLUG	

FUSE

Ref.No.	Part No.	Description	Remark
F1601⚠	1-532-350-11	FUSE, TIME-LAG 4A/250V	
	1-533-149-00	HOLDER, FUSE; F1601	

FILTER

Ref.No.	Part No.	Description	Remark
LF1601⚠	1-421-866-12	LFT	
LF1602⚠	1-421-776-11	LFT	

RESISTOR

Ref.No.	Part No.	Description				Remark
R1601⚠	1-247-879-91	CARBON	100K	5%	1/4W	
R1602⚠	1-244-945-91	CARBON	1M	5%	1/2W	
R1603⚠	1-217-328-11	WIREWOUND	2.7	10%	7W	F
R1604⚠	1-247-879-91	CARBON	100K	5%	1/4W	
R1605⚠	1-247-289-11	CARBON	8.2M	5%	1W	
R1606⚠	1-217-777-11	WIREWOUND	100	10%	10W	F

THERMISTOR

Ref.No.	Part No.	Description	Remark
THP601⚠	1-806-387-11	THERMISTOR (POSITIVE)	

****

Ref.No.	Part No.	Description	Remark
	*A-1296-317-A	A BOARD, COMPLETE *****************	
	*4-380-698-01	CASE (MAIN), SHIELD, A1	
	*4-380-699-01	CASE (UPPER LID), SHIELD, A1	
	*4-382-701-01	CASE (BOTTOM LID), SHIELD, A2	

CAPACITOR

Ref.No.	Part No.	Description				Remark
C101	1-124-908-11	ELECT	22MF	20%	50V	
C102	1-126-103-11	ELECT	470MF	20%	16V	
C103	1-110-175-81	MYLAR	0.1MF	10%	100V	
C104	1-110-173-81	MYLAR	0.068MF	10%	100V	
C105	1-110-173-81	MYLAR	0.068MF	10%	100V	
C106	1-101-004-00	CERAMIC	0.01MF		50V	
C107	1-102-963-00	CERAMIC	33PF	5%	50V	
C108	1-124-963-11	ELECT	33MF	20%	16V	
C109	1-101-003-00	CERAMIC	0.0047MF		50V	
C110	1-124-499-11	ELECT	1MF	20%	50V	
C111	1-101-003-00	CERAMIC	0.0047MF		50V	
C112	1-101-003-00	CERAMIC	0.0047MF		50V	
C113	1-101-003-00	CERAMIC	0.0047MF		50V	
C114	1-124-963-11	ELECT	33MF	20%	16V	
C117	1-102-978-00	CERAMIC	220PF	5%	50V	
C118	1-101-880-00	CERAMIC	47PF	5%	50V	
C119	1-126-101-11	ELECT	100MF	20%	16V	
C120	1-124-925-11	ELECT	2.2MF	20%	50V	
C121	1-101-003-00	CERAMIC	0.0047MF		50V	
C122	1-101-003-00	CERAMIC	0.0047MF		50V	
C123	1-101-003-00	CERAMIC	0.0047MF		50V	
C124	1-101-888-00	CERAMIC	68PF	5%	50V	
C125	1-101-888-00	CERAMIC	68PF	5%	50V	
C127	1-101-003-00	CERAMIC	0.0047MF		50V	
C128	1-124-963-11	ELECT	33MF	20%	16V	
C129	1-101-888-00	CERAMIC	68PF	5%	50V	
C130	1-101-004-00	CERAMIC	0.01MF		50V	
C131	1-101-006-00	CERAMIC	0.047MF		50V	
C132	1-124-499-11	ELECT	1MF	20%	50V	
C133	1-101-003-00	CERAMIC	0.0047MF		50V	
C134	1-124-499-11	ELECT	1MF	20%	50V	
C135	1-101-004-00	CERAMIC	0.01MF		50V	
C136	1-101-006-00	CERAMIC	0.047MF		50V	
C137	1-102-961-00	CERAMIC	27PF	5%	50V	
C138	1-124-499-11	ELECT	1MF	20%	50V	
C139	1-123-875-11	ELECT	10MF	20%	50V	
C140	1-108-614-91	MYLAR	0.001MF	10%	100V	
C141	1-129-794-00	FILM	0.0033MF	2%	100V	
C142	1-102-816-00	CERAMIC	120PF	5%	50V	
C143	1-101-361-00	CERAMIC	150PF	5%	50V	
C144	1-124-477-11	ELECT	47MF	20%	16V	
C145	1-124-477-11	ELECT	47MF	20%	16V	
C146	1-124-477-11	ELECT	47MF	20%	16V	
C147	1-124-477-11	ELECT	47MF	20%	16V	
C148	1-123-875-11	ELECT	10MF	20%	50V	
C149	1-136-153-00	FILM	0.01MF	5%	50V	
C150	1-136-153-00	FILM	0.01MF	5%	50V	
C151	1-124-908-11	ELECT	22MF	20%	50V	
C152	1-124-908-11	ELECT	22MF	20%	50V	
C153	1-136-165-00	FILM	0.1MF	5%	50V	
C154	1-136-169-00	FILM	0.22MF	5%	50V	
C155	1-124-963-11	ELECT	33MF	20%	16V	
C156	1-136-157-00	FILM	0.022MF	5%	50V	
C157	1-136-161-00	FILM	0.047MF	5%	50V	
C158	1-124-963-11	ELECT	33MF	20%	16V	
C159	1-124-477-11	ELECT	47MF	20%	16V	
C161	1-124-477-11	ELECT	47MF	20%	16V	
C162	1-102-816-00	CERAMIC	120PF	5%	50V	
C163	1-124-927-11	ELECT	4.7MF	20%	50V	
C164	1-110-190-81	MYLAR	0.01MF	10%	400V	
C165	1-130-853-00	FILM	0.0047MF	5%	50V	
C167	1-124-499-11	ELECT	1MF	20%	50V	
C168	1-110-179-81	MYLAR	0.22MF	10%	100V	
C169	1-123-875-11	ELECT	10MF	20%	50V	
C170	1-101-004-00	CERAMIC	0.01MF		50V	
C171	1-101-004-00	CERAMIC	0.01MF		50V	
C174	1-124-499-11	ELECT	1MF	20%	50V	
C177	1-102-119-00	CERAMIC	0.0015MF	10%	50V	
C187	1-101-003-00	CERAMIC	0.0047MF		50V	
C188	1-124-963-11	ELECT	33MF	20%	16V	
C189	1-124-963-11	ELECT	33MF	20%	16V	
C190	1-110-175-81	MYLAR	0.1MF	10%	100V	

A

FILTER

Ref.No.	Part No.	Description	Remark
CD101	1-404-750-11	DISCRIMINATOR, CERAMIC	
CD102	1-404-745-11	DISCRIMINATOR, CERAMIC	
CD103	1-404-746-11	DISCRIMINATOR, CERAMIC	
CF101	1-404-134-00	TRAP, CERAMIC (5.5MHZ)	
CF103	1-527-840-00	FILTER, CERAMIC	
CF104	1-527-839-00	FILTER, CERAMIC	
CF105	1-527-839-00	FILTER, CERAMIC	
SWF101	1-404-717-11	FILTER, SURFACE WAVE	

CONNECTOR

Ref.No.	Part No.	Description	Remark
CNA11	*1-566-659-11	CONNECTOR, HINGE (SOCKET) 18P	

DIODE

Ref.No.	Part No.	Description	Remark
D105	8-719-109-92	DIODE RD6.2ES-B1	
D106	8-719-911-19	DIODE 1SS119	
D108	8-719-000-06	DIODE MC921	

IC

Ref.No.	Part No.	Description	Remark
IC101	8-759-909-08	IC TDA3541	
IC102	8-759-941-96	IC TDA2556	
IC103	8-759-013-18	IC TDA6600	
IC104	8-759-946-99	IC TDA2595-V7	
IC105	8-759-003-90	IC TBA129	

COIL

Ref.No.	Part No.	Description		Remark
L101	1-408-226-00	INDUCTOR	82UH	
L102	1-410-116-11	INDUCTOR	560UH	
L103	1-410-467-21	INDUCTOR	5.6UH	
L104	1-408-411-00	INDUCTOR	15UH	
L105	1-410-482-31	INDUCTOR	100UH	
L106	1-410-476-11	INDUCTOR	33UH	
L107	1-410-467-21	INDUCTOR	5.6UH	
L108	1-410-473-11	INDUCTOR	18UH	
L109	1-410-473-11	INDUCTOR	18UH	
L110	1-410-064-11	INDUCTOR	2.7MMH	
L111	1-410-482-31	INDUCTOR	100UH	
L112	1-410-471-11	INDUCTOR	12UH	
L113	1-410-460-11	INDUCTOR	1.5UH	

TRANSISTOR

Ref.No.	Part No.	Description	Remark
Q101	8-729-900-61	TRANSISTOR DTA114ES	
Q102	8-729-900-61	TRANSISTOR DTA114ES	
Q104	8-729-900-61	TRANSISTOR DTA114ES	
Q105	8-729-178-54	TRANSISTOR 2SC2785	
Q106	8-729-178-54	TRANSISTOR 2SC2785	
Q107	8-729-117-54	TRANSISTOR 2SA1175	
Q108	8-729-900-65	TRANSISTOR DTA144ES	
Q109	8-729-900-89	TRANSISTOR DTC144ES	
Q110	8-729-117-54	TRANSISTOR 2SA1175	
Q111	8-729-900-89	TRANSISTOR DTC144ES	
Q112	8-729-178-54	TRANSISTOR 2SC2785	
Q113	8-729-178-54	TRANSISTOR 2SC2785	

RESISTOR

Ref.No.	Part No.	Description				Remark
R101	1-249-405-11	CARBON	100	5%	1/4W	
R102	1-249-423-11	CARBON	3.3K	5%	1/4W	
R103	1-249-433-11	CARBON	22K	5%	1/4W	
R104	1-249-429-11	CARBON	10K	5%	1/4W	
R105	1-249-418-11	CARBON	1.2K	5%	1/4W	
R106	1-247-891-00	CARBON	330K	5%	1/4W	
R107	1-249-421-11	CARBON	2.2K	5%	1/4W	
R108	1-249-421-11	CARBON	2.2K	5%	1/4W	
R109	1-249-423-11	CARBON	3.3K	5%	1/4W	
R110	1-249-412-11	CARBON	390	5%	1/4W	
R111	1-249-418-11	CARBON	1.2K	5%	1/4W	
R112	1-249-421-11	CARBON	2.2K	5%	1/4W	
R113	1-249-411-11	CARBON	330	5%	1/4W	
R114	1-249-413-11	CARBON	470	5%	1/4W	
R115	1-249-413-11	CARBON	470	5%	1/4W	
R116	1-249-419-11	CARBON	1.5K	5%	1/4W	
R117	1-249-431-11	CARBON	15K	5%	1/4W	
R118	1-249-425-11	CARBON	4.7K	5%	1/4W	
R119	1-249-417-11	CARBON	1K	5%	1/4W	
R121	1-249-429-11	CARBON	10K	5%	1/4W	
R122	1-249-436-11	CARBON	39K	5%	1/4W	
R123	1-249-417-11	CARBON	1K	5%	1/4W	
R124	1-249-423-11	CARBON	3.3K	5%	1/4W	
R125	1-249-429-11	CARBON	10K	5%	1/4W	
R126	1-249-436-11	CARBON	39K	5%	1/4W	
R127	1-249-432-11	CARBON	18K	5%	1/4W	
R128	1-249-432-11	CARBON	18K	5%	1/4W	
R129	1-249-429-11	CARBON	10K	5%	1/4W	
R130	1-249-429-11	CARBON	10K	5%	1/4W	
R132	1-249-414-11	CARBON	560	5%	1/4W	
R133	1-249-425-11	CARBON	4.7K	5%	1/4W	
R134	1-249-414-11	CARBON	560	5%	1/4W	
R135	1-249-419-11	CARBON	1.5K	5%	1/4W	
R136	1-249-414-11	CARBON	560	5%	1/4W	
R137	1-249-414-11	CARBON	560	5%	1/4W	
R138	1-249-419-11	CARBON	1.5K	5%	1/4W	
R140	1-249-441-11	CARBON	100K	5%	1/4W	
R141	1-249-425-11	CARBON	4.7K	5%	1/4W	
R142	1-249-441-11	CARBON	100K	5%	1/4W	
R143	1-249-441-11	CARBON	100K	5%	1/4W	
R144	1-249-422-11	CARBON	2.7K	5%	1/4W	
R146	1-249-424-11	CARBON	3.9K	5%	1/4W	
R148	1-249-413-11	CARBON	470	5%	1/4W	
R150	1-249-423-11	CARBON	3.3K	5%	1/4W	
R151	1-249-423-11	CARBON	3.3K	5%	1/4W	
R152	1-249-431-11	CARBON	15K	5%	1/4W	
R153	1-249-416-11	CARBON	820	5%	1/4W	
R154	1-249-441-11	CARBON	100K	5%	1/4W	
R155	1-249-430-11	CARBON	12K	5%	1/4W	
R156	1-247-881-00	CARBON	120K	5%	1/4W	
R160	1-249-417-11	CARBON	1K	5%	1/4W	
R162	1-249-415-11	CARBON	680	5%	1/4W	
R163	1-249-424-11	CARBON	3.9K	5%	1/4W	
R165	1-249-423-11	CARBON	3.3K	5%	1/4W	
R166	1-249-437-11	CARBON	47K	5%	1/4W	
R172	1-249-417-11	CARBON	1K	5%	1/4W	
R173	1-249-414-11	CARBON	560	5%	1/4W	
R188	1-249-419-11	CARBON	1.5K	5%	1/4W	
R189	1-249-419-11	CARBON	1.5K	5%	1/4W	

VARIABLE RESISTOR

Ref.No.	Part No.	Description	Remark
RV101	1-237-753-11	RES, ADJ, CARBON 47K	
RV102	1-237-751-11	RES, ADJ, CARBON 10K	
RV103	1-237-753-11	RES, ADJ, CARBON 47K	

TRANSFORMER

Ref.No.	Part No.	Description	Remark
T101	1-404-493-00	COIL	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

A **C** **D**

Ref.No.	Part No.	Description	Remark
T102	1-404-493-00	COIL	
T103	1-404-493-00	COIL	

TUNER

TU101⚠	1-463-881-11	TUNER, ET (UV-617)	

****

*A-1330-850-A C BOARD, COMPLETE
****

*4-379-160-01	COVER (REAR LID), CV
*4-379-167-01	COVER (MAIN), CV
*4-386-664-01	SPRING

CAPACITOR

C703	1-102-980-00	CERAMIC	270PF	5%	50V
C704	1-102-116-00	CERAMIC	680PF	10%	50V
C705	1-102-976-00	CERAMIC	180PF	5%	50V
C706	1-102-116-00	CERAMIC	680PF	10%	50V
C707	1-162-116-00	CERAMIC	680PF	10%	2KV
C708	1-162-114-00	CERAMIC	0.0047MF		2KV
C709	1-102-116-00	CERAMIC	680PF	10%	50V
C710	1-123-947-00	ELECT	10MF	20%	250V
C711	1-101-880-00	CERAMIC	47PF	5%	50V
C712	1-102-980-00	CERAMIC	270PF	5%	50V
C714	1-124-360-00	ELECT	1000MF	20%	16V
C716	1-162-583-11	CERAMIC	330PF	10%	400V
C717	1-102-114-00	CERAMIC	470PF	10%	50V
C718	1-102-114-00	CERAMIC	470PF	10%	50V
C719	1-102-114-00	CERAMIC	470PF	10%	50V

CONNECTOR

CNC71	*1-506-371-00	2P PLUG (L)
CNC72	*1-564-883-11	PLUG, CONNECTOR 6P
CNC81	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)
CNC82	*1-508-765-00	3P PLUG (M)

DIODE

D701	8-719-110-14	DIODE RD9.1ES-B3
D702	8-719-911-19	DIODE 1SS119
D703	8-719-911-19	DIODE 1SS119
D704	8-719-911-19	DIODE 1SS119
D705	8-719-911-19	DIODE 1SS119
D706	8-719-911-19	DIODE 1SS119
D707	8-719-911-19	DIODE 1SS119
D708	8-719-911-19	DIODE 1SS119
D709	8-719-911-19	DIODE 1SS119
D710	8-719-911-19	DIODE 1SS119
D711	8-719-924-06	DIODE ERC24-06S
D713	8-719-911-19	DIODE 1SS119

JACK

J701	1-526-798-51	SOCKET, CRT

COIL

L704	1-410-878-21	INDUCTOR	33UH

Ref.No.	Part No.	Description	Remark

TRANSISTOR

Q702	8-729-178-54	TRANSISTOR 2SC2785
Q703	8-729-326-11	TRANSISTOR 2SC2611
Q704	8-729-200-17	TRANSISTOR 2SA1091
Q705	8-729-178-54	TRANSISTOR 2SC2785
Q706	8-729-326-11	TRANSISTOR 2SC2611
Q707	8-729-200-17	TRANSISTOR 2SA1091
Q708	8-729-178-54	TRANSISTOR 2SC2785
Q709	8-729-326-11	TRANSISTOR 2SC2611
Q710	8-729-200-17	TRANSISTOR 2SA1091

RESISTOR

R704	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R705	1-202-824-00	SOLID	3.3K	10%	1/2W	
R706	1-249-409-11	CARBON	220	5%	1/4W	
R707	1-247-822-00	CARBON	430	5%	1/4W	
R708	1-249-401-11	CARBON	47	5%	1/4W	
R709	1-202-844-00	SOLID	330K	10%	1/2W	
R710	1-215-469-00	METAL	100K	1%	1/6W	
R712	1-249-417-11	CARBON	1K	5%	1/4W	
R713	1-215-474-00	METAL	160K	1%	1/6W	
R714	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R715	1-202-824-00	SOLID	3.3K	10%	1/2W	
R716	1-249-409-11	CARBON	220	5%	1/4W	
R717	1-249-415-11	CARBON	680	5%	1/4W	
R718	1-202-814-11	SOLID	33K	10%	1/2W	
R719	1-249-401-11	CARBON	47	5%	1/4W	
R720	1-249-423-11	CARBON	3.3K	5%	1/4W	
R721	1-202-842-11	SOLID	220K	10%	1/2W	
R722	1-202-848-00	SOLID	680K	10%	1/2W	
R723	1-249-417-11	CARBON	1K	5%	1/4W	
R724	1-202-846-00	SOLID	470K	10%	1/2W	
R725	1-202-838-00	SOLID	100K	10%	1/2W	
R726	1-202-824-00	SOLID	3.3K	10%	1/2W	
R727	1-249-409-11	CARBON	220	5%	1/4W	
R728	1-216-347-11	METAL OXIDE	0.68	5%	1W	F
R729	1-249-416-11	CARBON	820	5%	1/4W	
R730	1-249-401-11	CARBON	47	5%	1/4W	
R731	1-249-423-11	CARBON	3.3K	5%	1/4W	
R732	1-249-415-11	CARBON	680	5%	1/4W	
R733	1-249-415-11	CARBON	680	5%	1/4W	
R734	1-249-405-11	CARBON	100	5%	1/4W	
R735	1-215-493-00	METAL	1M	1%	1/6W	
R736	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R737	1-215-483-00	METAL	390K	1%	1/6W	
R739	1-249-417-11	CARBON	1K	5%	1/4W	

VARIABLE RESISTOR

RV701	1-226-114-00	RES, ADJ, METAL GLAZE 2.2M
RV702	1-230-619-11	RES, ADJ, METAL GLAZE 110M
RV703	1-237-749-11	RES, ADJ, CARBON 2200
RV704	1-237-749-11	RES, ADJ, CARBON 2200

****

*A-1345-721-A D BOARD, COMPLETE
****

*4-341-751-01	PAWL
*4-341-751-01	PAWL
*4-341-752-01	EYELET

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

CAPACITOR

Ref.No.	Part No.	Description			Remark
C001	1-102-973-00	CERAMIC	100PF	5%	50V
C003	1-110-175-81	MYLAR	0.1MF	10%	100V
C004	1-123-875-11	ELECT	10MF	20%	50V
C005	1-102-074-00	CERAMIC	0.001MF	10%	50V
C007	1-110-171-81	MYLAR	0.047MF	10%	100V
C008	1-101-880-00	CERAMIC	47PF	5%	50V
C009	1-101-884-00	CERAMIC	56PF	5%	50V
C010	1-126-101-11	ELECT	100MF	20%	16V
C011	1-101-004-00	CERAMIC	0.01MF		50V
C012	1-126-101-11	ELECT	100MF	20%	16V
C013	1-101-004-00	CERAMIC	0.01MF		50V
C014	1-124-463-00	ELECT	0.1MF	20%	50V
C015	1-126-101-11	ELECT	100MF	20%	16V
C016	1-101-004-00	CERAMIC	0.01MF		50V
C017	1-123-875-11	ELECT	10MF	20%	50V
C018	1-102-980-00	CERAMIC	270PF	5%	50V
C019	1-110-171-81	MYLAR	0.047MF	10%	100V
C020	1-102-973-00	CERAMIC	100PF	5%	50V
C021	1-102-973-00	CERAMIC	100PF	5%	50V
C022	1-124-477-11	ELECT	47MF	20%	16V
C023	1-124-499-11	ELECT	1MF	20%	50V
C024	1-124-499-11	ELECT	1MF	20%	50V
C025	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C026	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C027	1-110-175-81	MYLAR	0.1MF	10%	100V
C028	1-101-361-00	CERAMIC	150PF	5%	50V
C029	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C030	1-102-953-00	CERAMIC	18PF	5%	50V
C251	1-124-927-11	ELECT	4.7MF	20%	50V
C252	1-124-927-11	ELECT	4.7MF	20%	50V
C253	1-124-122-11	ELECT	100MF	20%	50V
C254	1-124-927-11	ELECT	4.7MF	20%	50V
C255	1-124-927-11	ELECT	4.7MF	20%	50V
C256	1-110-175-81	MYLAR	0.1MF	10%	100V
C257	1-101-004-00	CERAMIC	0.01MF		50V
C258	1-110-175-81	MYLAR	0.1MF	10%	100V
C260	1-110-175-81	MYLAR	0.1MF	10%	100V
C265	1-102-074-00	CERAMIC	0.001MF	10%	50V
C266	1-102-074-00	CERAMIC	0.001MF	10%	50V
C401	1-124-477-11	ELECT	47MF	20%	16V
C403	1-124-477-11	ELECT	47MF	20%	16V
C501	1-124-927-11	ELECT	4.7MF	20%	50V
C502	1-124-927-11	ELECT	4.7MF	20%	50V
C503	1-110-192-81	MYLAR	0.015MF	10%	400V
C504	1-101-361-00	CERAMIC	150PF	5%	50V
C505	1-108-794-91	MYLAR	0.0015MF	5%	50V
C506	1-110-182-81	MYLAR	0.022MF	10%	250V
C507	1-110-327-81	MYLAR	0.33MF	10%	100V
C508	1-110-182-81	MYLAR	0.022MF	10%	250V
C509	1-110-175-81	MYLAR	0.1MF	10%	100V
C510	1-161-959-00	CERAMIC	22PF	10%	500V
C511	1-108-620-91	MYLAR	0.0033MF	10%	100V
C512	1-110-175-81	MYLAR	0.1MF	10%	100V
C513	1-108-614-91	MYLAR	0.001MF	10%	100V
C514	1-110-179-81	MYLAR	0.22MF	10%	100V
C515	1-124-499-11	ELECT	1MF	20%	50V
C516	1-108-614-91	MYLAR	0.001MF	10%	100V
C517	1-124-252-00	ELECT	0.33MF	20%	50V
C518	1-124-902-00	ELECT	0.47MF	20%	50V
C519	1-136-173-00	FILM	0.47MF	5%	50V
C520	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C521	1-110-175-81	MYLAR	0.1MF	10%	100V
C522	1-124-122-11	ELECT	100MF	20%	50V
C523	1-108-614-91	MYLAR	0.001MF	10%	100V
C524	1-106-355-12	MYLAR	0.0033MF	5%	50V
C525	1-102-973-00	CERAMIC	100PF	5%	50V
C526	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C527	1-110-175-81	MYLAR	0.1MF	10%	100V
C531	1-124-117-00	ELECT	680MF	10%	25V
C532	1-124-122-11	ELECT	100MF	20%	50V
C533	1-110-173-81	MYLAR	0.068MF	10%	100V
C534	1-124-120-11	ELECT	220MF	20%	16V
C536	1-131-363-00	TANTALUM	4.7MF	10%	16V
C537	1-124-499-11	ELECT	1MF	20%	50V
C538	1-108-614-91	MYLAR	0.001MF	10%	100V
C539	1-102-820-00	CERAMIC	330PF	5%	50V
C591	1-123-875-11	ELECT	10MF	20%	50V
C592	1-124-477-11	ELECT	47MF	20%	16V
C593	1-102-820-00	CERAMIC	330PF	5%	50V
C601	1-161-964-00	CERAMIC	0.0047MF		250V
C602	1-161-964-00	CERAMIC	0.0047MF		250V
C603	1-161-964-00	CERAMIC	0.0047MF		250V
C604	1-125-318-00	ELECT(BLOCK)	220MF	20%	400V
C605	1-124-122-11	ELECT	100MF	20%	50V
C606	1-110-175-81	MYLAR	0.1MF	10%	100V
C607	1-130-019-00	FILM	0.0012MF	5%	50V
C608	1-123-875-11	ELECT	10MF	20%	50V
C611	1-124-122-11	ELECT	100MF	20%	50V
C612	1-162-115-00	CERAMIC	330PF	10%	2KV
C613	1-136-088-00	FILM	0.0022MF	3%	2KV
C614	1-102-030-00	CERAMIC	330PF	10%	500V
C615	1-124-557-11	ELECT	1000MF	20%	25V
C616	1-102-030-00	CERAMIC	330PF	10%	500V
C618	1-124-637-11	ELECT	1000MF	20%	50V
C619	1-124-556-11	ELECT	2200MF	20%	16V
C620	1-102-074-00	CERAMIC	0.001MF	10%	50V
C621	1-124-347-00	ELECT	100MF	20%	160V
C622	1-124-556-11	ELECT	2200MF	20%	16V
C623	1-124-910-11	ELECT	47MF	20%	50V
C624	1-124-122-11	ELECT	100MF	20%	50V
C625	1-124-360-00	ELECT	1000MF	20%	16V
C626	1-123-875-11	ELECT	10MF	20%	50V
C627	1-102-074-00	CERAMIC	0.001MF	10%	50V
C628	1-124-360-00	ELECT	1000MF	20%	16V
C631	1-124-927-11	ELECT	4.7MF	20%	50V
C632	1-102-074-00	CERAMIC	0.001MF	10%	50V
C633	1-124-927-11	ELECT	4.7MF	20%	50V
C636	1-123-258-91	ELECT	3.3MF	20%	50V
C801	1-126-105-11	ELECT	1000MF	20%	35V
C802	1-102-030-00	CERAMIC	330PF	10%	500V
C804	1-123-948-00	ELECT	22MF	20%	250V
C805	1-162-114-00	CERAMIC	0.0047MF		2KV
C806	1-110-175-81	MYLAR	0.1MF	10%	100V
C807	1-106-395-00	MYLAR	0.15MF	10%	200V
C810	1-123-024-00	ELECT	33MF		160V
C811	1-136-116-00	FILM	1MF	5%	200V
C812	1-123-943-00	ELECT	1MF	20%	250V
C813	1-102-212-00	CERAMIC	820PF	10%	500V
C814	1-161-731-00	CERAMIC	0.001MF	10%	2KV
C815	1-136-116-00	FILM	1MF	5%	200V
C817	1-136-549-11	FILM	0.0106MF	3%	1.4KV
C818	1-129-721-00	FILM	0.039MF	10%	630V
C819 ⚠	1-161-731-11	CERAMIC	0.001MF	10%	2KV
C820	1-110-189-81	MYLAR	0.0082MF	10%	400V
C821 ⚠	1-162-116-51	CERAMIC	680PF	10%	2KV
C822	1-102-114-00	CERAMIC	470PF	10%	50V
C823	1-110-186-81	MYLAR	0.0047MF	10%	400V

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description			Remark
C824	1-102-212-00	CERAMIC	820PF	10%	500V
C825	1-110-182-81	MYLAR	0.022MF	10%	250V
C826	1-123-875-11	ELECT	10MF	20%	50V

FILTER

CF001	1-567-686-11	OSCILLATOR, CERAMIC
CF501	1-567-888-11	OSCILLATOR, CERAMIC

CONNECTOR

CN801	*1-508-765-00	3P PLUG (M)
CND01	*1-564-884-11	PLUG, CONNECTOR 7P
CND02	*1-564-886-11	PLUG, CONNECTOR 9P
CND11	*1-566-660-11	CONNECTOR, HINGE (PLUG) 18P
CND12	*1-564-884-21	PLUG, CONNECTOR 7P
CND21	*1-564-346-00	CONNECTOR, BOARD TO BOARD 18P
CND23	*1-560-124-00	PLUG, CONNECTOR (2.5MM PITCH)
CND31	*1-564-346-00	CONNECTOR, BOARD TO BOARD 18P
CND41	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)
CND45	*1-564-882-11	PLUG, CONNECTOR 5P
CND51	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)
CND64	*1-506-349-21	3P PLUG (L)
CND68	*1-564-879-11	PLUG, CONNECTOR 2P
CND82	*1-508-765-00	3P PLUG (M)
CND83	*1-508-786-00	2P PLUG (M)
CND84	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P
CND91	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P
CND92	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P
CND94	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)

DIODE

D001	8-719-911-19	DIODE 1SS119
D002	8-719-911-19	DIODE 1SS119
D003	8-719-911-19	DIODE 1SS119
D004	8-719-911-19	DIODE 1SS119
D005	8-719-109-71	DIODE RD3.9ES-B1
D007	8-719-109-89	DIODE RD5.6ES-B2
D008	8-719-110-85	DIODE RD36ES-B4
D009	8-719-109-89	DIODE RD5.6ES-B2
D011	8-719-911-19	DIODE 1SS119
D012	8-719-911-19	DIODE 1SS119
D013	8-719-911-19	DIODE 1SS119
D254	8-719-110-14	DIODE RD9.1ES-B3
D501	8-719-911-19	DIODE 1SS119
D504	8-719-911-55	DIODE U05G
D506	8-719-000-12	DIODE MC931
D508	8-719-911-19	DIODE 1SS119
D511	8-719-911-55	DIODE U05G
D512	8-719-911-55	DIODE U05G
D513	8-719-109-81	DIODE RD4.7ES-B2
D591	8-719-911-19	DIODE 1SS119
D592	8-719-911-19	DIODE 1SS119
D593	8-719-911-19	DIODE 1SS119
D601	8-719-946-90	DIODE KBU4JL-6088
D602	8-719-924-06	DIODE ERC24-06S
D603	8-719-911-55	DIODE U05G
D604	8-719-911-55	DIODE U05G
D605	8-719-911-55	DIODE U05G
D606	8-719-924-06	DIODE ERC24-06S
D607	8-719-924-06	DIODE ERC24-06S
D608	8-719-925-06	DIODE ERC25-06S
D610	8-719-300-59	DIODE CTU-12S
D611	8-719-928-08	DIODE ERD28-06S

Ref.No.	Part No.	Description	Remark
D612	8-719-300-59	DIODE CTU-12S	
D613	8-719-924-06	DIODE ERC24-06S	
D614	8-719-924-06	DIODE ERC24-06S	
D615	8-719-109-90	DIODE RD5.6ES-B3	
D616	8-719-109-93	DIODE RD6.2ES-B2	
D617	8-719-109-93	DIODE RD6.2ES-B2	
D618	8-719-109-89	DIODE RD5.6ES-B2	
D619	8-719-109-89	DIODE RD5.6ES-B2	
D620	8-719-000-12	DIODE MC931	
D621	8-719-000-12	DIODE MC931	
D622	8-719-911-19	DIODE 1SS119	
D623	8-719-911-19	DIODE 1SS119	
D624	8-719-911-19	DIODE 1SS119	
D627	8-719-911-19	DIODE 1SS119	
D630	8-719-110-39	DIODE RD15ES-B1	
D632	8-719-110-16	DIODE RD10ES-B1	
D633	8-719-911-19	DIODE 1SS119	
D801	8-719-924-06	DIODE ERC24-06S	
D802	8-719-924-06	DIODE ERC24-06S	
D803	8-719-300-65	DIODE ES1F	
D804	8-719-911-55	DIODE U05G	
D805	8-719-911-55	DIODE U05G	
D806	8-719-945-80	DIODE ERC06-15S	
D808	8-719-928-08	DIODE ERD28-08S	
D809	8-719-924-06	DIODE ERC24-06S	

IC

IC001	8-759-630-06	IC M50436-614SP
IC002	8-759-971-68	IC MB88503H-597G
IC003	8-759-603-41	IC M58655P
IC004	8-759-157-40	IC UPC574J
IC251	8-759-803-31	IC LA4280
	*4-368-683-01	SPRING; IC251
IC401	8-759-913-13	IC CX20061
IC501	8-759-970-73	IC TEA2028B
IC502	8-759-944-57	IC TDA8170
IC601	8-759-946-23	IC TEA2164
	*4-386-642-01	HEAT SINK, IC; IC601

COIL

L001	1-410-475-21	INDUCTOR 27UH
L501	1-408-225-00	INDUCTOR 3.3UH
L601	*1-420-872-00	COIL, AIR CORE
L602	1-410-396-41	FERRITE BEAD INDUCTOR
L603	1-410-396-41	FERRITE BEAD INDUCTOR
L605	1-459-442-00	COIL (WITH CORE)
L606	1-421-013-00	COIL, (HOLIZONTAL CHOKE) 25UH
L607	1-410-482-31	INDUCTOR 100UH
L803	1-459-104-00	COIL, DUST CORE
L804	1-408-239-00	INDUCTOR 4.7MMH
L805	1-459-652-11	HLC
L806	1-459-115-00	COIL, DCC-H
L807	1-408-242-00	INDUCTOR 10MMH
L809	*1-420-872-00	COIL, AIR CORE
L810	1-459-390-00	COIL (WITH CORE)

IC LINK

PS601⚠	1-532-984-91	LINK, IC
PS602⚠	1-532-675-91	LINK, IC

D

TRANSISTOR

Ref.No.	Part No.	Description	Remark
Q001	8-729-178-54	TRANSISTOR 2SC2785	
Q002	8-729-117-54	TRANSISTOR 2SA1175	
Q003	8-729-117-54	TRANSISTOR 2SA1175	
Q004	8-729-117-54	TRANSISTOR 2SA1175	
Q252	8-729-900-36	TRANSISTOR DTC124ES	
Q501	8-729-117-54	TRANSISTOR 2SA1175	
Q502	8-729-117-54	TRANSISTOR 2SA1175	
Q503	8-729-178-54	TRANSISTOR 2SC2785	
Q505	8-729-177-43	TRANSISTOR 2SD774	
Q506	8-729-103-43	TRANSISTOR 2SB734	
Q507	8-729-117-54	TRANSISTOR 2SA1175	
Q591	8-729-178-54	TRANSISTOR 2SC2785	
Q598	8-729-178-54	TRANSISTOR 2SC2785	
Q601	8-729-904-32	TRANSISTOR 2SB1185-E	
Q602	8-729-209-02	TRANSISTOR 2SD1548-LB	
	*4-368-683-01	SPRING; Q602	
Q603	8-729-904-32	TRANSISTOR 2SB1185-E	
Q604	8-729-308-92	TRANSISTOR 2SD789-03C	
Q605	8-729-178-54	TRANSISTOR 2SC2785	
Q606	8-729-178-54	TRANSISTOR 2SC2785	
Q607	8-729-904-27	TRANSISTOR 2SD1761-E	
Q608	8-729-904-27	TRANSISTOR 2SD1761-E	
	*4-368-683-01	SPRING; Q608	
Q609	8-729-308-92	TRANSISTOR 2SD789-03C	
Q801	8-729-178-54	TRANSISTOR 2SC2785	
Q804	8-729-304-50	TRANSISTOR 2SD1941-06	
	*4-368-683-01	SPRING; Q804	
Q805	8-729-168-82	TRANSISTOR 2SC2688	

RESISTOR

Ref.No.	Part No.	Description				Remark
R001	1-249-417-11	CARBON	1K	5%	1/4W	
R002	1-249-417-11	CARBON	1K	5%	1/4W	
R003	1-249-417-11	CARBON	1K	5%	1/4W	
R004	1-249-417-11	CARBON	1K	5%	1/4W	
R005	1-249-411-11	CARBON	330	5%	1/4W	
R006	1-249-417-11	CARBON	1K	5%	1/4W	
R007	1-249-405-11	CARBON	100	5%	1/4W	
R008	1-249-417-11	CARBON	1K	5%	1/4W	
R009	1-249-417-11	CARBON	1K	5%	1/4W	
R010	1-249-413-11	CARBON	470	5%	1/4W	
R011	1-249-417-11	CARBON	1K	5%	1/4W	
R012	1-249-417-11	CARBON	1K	5%	1/4W	
R013	1-249-417-11	CARBON	1K	5%	1/4W	
R014	1-249-417-11	CARBON	1K	5%	1/4W	
R016	1-249-429-11	CARBON	10K	5%	1/4W	
R017	1-249-417-11	CARBON	1K	5%	1/4W	
R018	1-249-417-11	CARBON	1K	5%	1/4W	
R019	1-249-433-11	CARBON	22K	5%	1/4W	
R020	1-249-433-11	CARBON	22K	5%	1/4W	
R021	1-249-433-11	CARBON	22K	5%	1/4W	
R022	1-249-433-11	CARBON	22K	5%	1/4W	
R023	1-249-429-11	CARBON	10K	5%	1/4W	
R024	1-249-429-11	CARBON	10K	5%	1/4W	
R025	1-249-417-11	CARBON	1K	5%	1/4W	
R026	1-249-417-11	CARBON	1K	5%	1/4W	
R027	1-249-417-11	CARBON	1K	5%	1/4W	
R028	1-249-417-11	CARBON	1K	5%	1/4W	
R029	1-249-417-11	CARBON	1K	5%	1/4W	
R030	1-249-425-11	CARBON	4.7K	5%	1/4W	
R031	1-249-429-11	CARBON	10K	5%	1/4W	
R032	1-249-417-11	CARBON	1K	5%	1/4W	
R033	1-249-413-11	CARBON	470	5%	1/4W	
R034	1-249-413-11	CARBON	470	5%	1/4W	
R035	1-249-431-11	CARBON	15K	5%	1/4W	
R036	1-249-421-11	CARBON	2.2K	5%	1/4W	
R037	1-249-417-11	CARBON	1K	5%	1/4W	
R038	1-249-417-11	CARBON	1K	5%	1/4W	
R039	1-249-417-11	CARBON	1K	5%	1/4W	
R040	1-249-417-11	CARBON	1K	5%	1/4W	
R041	1-249-417-11	CARBON	1K	5%	1/4W	
R042	1-249-417-11	CARBON	1K	5%	1/4W	
R043	1-249-417-11	CARBON	1K	5%	1/4W	
R044	1-249-429-11	CARBON	10K	5%	1/4W	
R045	1-249-417-11	CARBON	1K	5%	1/4W	
R046	1-249-429-11	CARBON	10K	5%	1/4W	
R048	1-249-417-11	CARBON	1K	5%	1/4W	
R049	1-249-417-11	CARBON	1K	5%	1/4W	
R050	1-249-433-11	CARBON	22K	5%	1/4W	
R051	1-249-429-11	CARBON	10K	5%	1/4W	
R052	1-249-439-11	CARBON	68K	5%	1/4W	
R053	1-249-437-11	CARBON	47K	5%	1/4W	
R054	1-249-417-11	CARBON	1K	5%	1/4W	
R055	1-249-433-11	CARBON	22K	5%	1/4W	
R056	1-249-440-11	CARBON	82K	5%	1/4W	
R057	1-249-409-11	CARBON	220	5%	1/4W	
R058	1-249-409-11	CARBON	220	5%	1/4W	
R059	1-249-435-11	CARBON	33K	5%	1/4W	
R060	1-249-436-11	CARBON	39K	5%	1/4W	
R061	1-249-417-11	CARBON	1K	5%	1/4W	
R062	1-249-411-11	CARBON	330	5%	1/4W	
R063	1-249-431-11	CARBON	15K	5%	1/4W	
R064	1-249-429-11	CARBON	10K	5%	1/4W	
R067	1-249-413-11	CARBON	470	5%	1/4W	
R068	1-249-421-11	CARBON	2.2K	5%	1/4W	
R069	1-249-423-11	CARBON	3.3K	5%	1/4W	
R070	1-249-417-11	CARBON	1K	5%	1/4W	
R071	1-249-417-11	CARBON	1K	5%	1/4W	
R072	1-249-417-11	CARBON	1K	5%	1/4W	
R073	1-249-417-11	CARBON	1K	5%	1/4W	
R074	1-249-417-11	CARBON	1K	5%	1/4W	
R075	1-249-417-11	CARBON	1K	5%	1/4W	
R077	1-249-413-11	CARBON	470	5%	1/4W	
R078	1-249-423-11	CARBON	3.3K	5%	1/4W	
R079	1-249-435-11	CARBON	33K	5%	1/4W	
R080	1-249-429-11	CARBON	10K	5%	1/4W	
R081	1-249-441-11	CARBON	100K	5%	1/4W	
R083	1-249-429-11	CARBON	10K	5%	1/4W	
R084	1-249-413-11	CARBON	470	5%	1/4W	
R085	1-249-429-11	CARBON	10K	5%	1/4W	
R086	1-249-417-11	CARBON	1K	5%	1/4W	
R087	1-249-417-11	CARBON	1K	5%	1/4W	
R088	1-249-425-11	CARBON	4.7K	5%	1/4W	
R090	1-249-413-11	CARBON	470	5%	1/4W	
R091	1-249-409-11	CARBON	220	5%	1/4W	
R093	1-249-429-11	CARBON	10K	5%	1/4W	
R094	1-249-429-11	CARBON	10K	5%	1/4W	
R095	1-249-409-11	CARBON	220	5%	1/4W	
R096	1-249-409-11	CARBON	220	5%	1/4W	
R097	1-249-429-11	CARBON	10K	5%	1/4W	
R098	1-249-429-11	CARBON	10K	5%	1/4W	
R099	1-215-900-11	METAL OXIDE	22K	5%	2W	F
R251	1-249-417-11	CARBON	1K	5%	1/4W	
R252	1-249-413-11	CARBON	470	5%	1/4W	
R253	1-249-413-11	CARBON	470	5%	1/4W	
R255	1-249-385-11	CARBON	2.2	5%	1/4W	F
R256	1-249-385-11	CARBON	2.2	5%	1/4W	F
R260	1-249-393-11	CARBON	10	5%	1/4W	

Ref.No.	Part No.	Description				Remark
R261	1-249-429-11	CARBON	10K	5%	1/4W	
R262	1-249-413-11	CARBON	470	5%	1/4W	
R263	1-249-421-11	CARBON	2.2K	5%	1/4W	
R264	1-249-421-11	CARBON	2.2K	5%	1/4W	
R265	1-249-425-11	CARBON	4.7K	5%	1/4W	
R266	1-249-425-11	CARBON	4.7K	5%	1/4W	
R401	1-249-434-11	CARBON	27K	5%	1/4W	
R402	1-249-435-11	CARBON	33K	5%	1/4W	
R410	1-249-413-11	CARBON	470	5%	1/4W	
R411	1-249-413-11	CARBON	470	5%	1/4W	
R412	1-249-413-11	CARBON	470	5%	1/4W	
R500	1-215-487-00	CARBON	560K	5%	1/4W	
R501	1-249-413-11	CARBON	470	5%	1/4W	
R502	1-249-409-11	CARBON	220	5%	1/4W	
R503	1-249-410-11	CARBON	270	5%	1/4W	
R504	1-215-427-00	METAL	1.8K	1%	1/6W	
R505	1-249-431-11	CARBON	15K	5%	1/4W	
R506	1-249-428-11	CARBON	8.2K	5%	1/4W	
R507	1-247-891-00	CARBON	330K	5%	1/4W	
R509	1-249-424-11	CARBON	3.9K	5%	1/4W	
R510	1-249-426-11	CARBON	5.6K	5%	1/4W	
R511	1-249-429-11	CARBON	10K	5%	1/4W	
R512	1-247-891-00	CARBON	330K	5%	1/4W	
R513	1-249-429-11	CARBON	10K	5%	1/4W	
R514	1-249-409-11	CARBON	220	5%	1/4W	
R515	1-249-423-11	CARBON	3.3K	5%	1/4W	
R516	1-249-408-11	CARBON	180	5%	1/4W	
R517	1-249-429-11	CARBON	10K	5%	1/4W	
R518	1-249-437-11	CARBON	47K	5%	1/4W	
R519	1-249-433-11	CARBON	22K	5%	1/4W	
R520	1-249-411-11	CARBON	330	5%	1/4W	
R521	1-249-405-11	CARBON	100	5%	1/4W	
R522	1-215-469-00	METAL	100K	1%	1/6W	
R523	1-249-417-11	CARBON	1K	5%	1/4W	
R524	1-249-421-11	CARBON	2.2K	5%	1/4W	
R525	1-249-417-11	CARBON	1K	5%	1/4W	
R526	1-249-409-11	CARBON	220	5%	1/4W	F
R527	1-249-431-11	CARBON	15K	5%	1/4W	
R528	1-249-408-11	CARBON	180	5%	1/4W	
R529	1-249-427-11	CARBON	6.8K	5%	1/4W	
R530	1-249-448-11	CARBON	1.2	5%	1/4W	F
R533	1-249-408-11	CARBON	180	5%	1/4W	
R534	1-215-491-00	CARBON	820K	5%	1/4W	
R535	1-249-753-15	CARBON	4.7M	5%	1/4W	
R536	1-249-749-00	CARBON	2.2M	5%	1/4W	
R537	1-249-434-11	CARBON	27K	5%	1/4W	
R538	1-247-883-00	CARBON	150K	5%	1/4W	
R539	1-247-883-00	CARBON	150K	5%	1/4W	
R540	1-249-399-11	CARBON	33	5%	1/4W	
R541	1-249-438-11	CARBON	56K	5%	1/4W	
R542	1-249-425-11	CARBON	4.7K	5%	1/4W	
R543	1-215-088-00	METAL	2.2	5%	1/4W	
R544	1-247-745-11	CARBON	330	5%	1/2W	
R545	1-249-436-11	CARBON	39K	5%	1/4W	
R546	1-249-434-11	CARBON	27K	5%	1/4W	
R547	1-249-426-11	CARBON	5.6K	5%	1/4W	
R548	1-216-350-11	METAL OXIDE	1.2	5%	1W	F
R549	1-215-890-11	METAL OXIDE	470	5%	2W	F
R550	1-249-440-11	CARBON	82K	5%	1/4W	
R551	1-249-749-00	CARBON	2.2M	5%	1/4W	
R552	1-218-026-51	METAL OXIDE	1.2K	5%	1W	
R553	1-218-025-51	METAL OXIDE	1K	5%	1W	
R554	1-249-411-11	CARBON	330	5%	1/4W	
R555	1-249-749-00	CARBON	2.2M	5%	1/4W	
R556	1-249-405-11	CARBON	100	5%	1/4W	
R557	1-249-425-11	CARBON	4.7K	5%	1/4W	
R558	1-247-895-00	CARBON	470K	5%	1/4W	
R559	1-249-427-11	CARBON	6.8K	5%	1/4W	
R560	1-249-411-11	CARBON	330	5%	1/4W	
R591	1-249-427-11	CARBON	6.8K	5%	1/4W	
R592	1-249-429-11	CARBON	10K	5%	1/4W	
R593	1-249-429-11	CARBON	10K	5%	1/4W	
R594	1-249-424-11	CARBON	3.9K	5%	1/4W	
R595	1-249-417-11	CARBON	1K	5%	1/4W	
R596	1-249-425-11	CARBON	4.7K	5%	1/4W	
R597	1-249-425-11	CARBON	4.7K	5%	1/4W	
R598	1-249-405-11	CARBON	100	5%	1/4W	
R599	1-249-405-11	CARBON	100	5%	1/4W	
R602	1-215-901-00	METAL OXIDE	33K	5%	2W	F
R603	1-216-359-00	METAL OXIDE	6.8	5%	1W	F
R604	1-249-414-11	CARBON	560	5%	1/4W	
R605	1-215-469-00	METAL	100K	1%	1/6W	
R606	1-215-440-00	CARBON	6.2K	5%	1/4W	
R607	1-249-434-11	CARBON	27K	5%	1/4W	
R608	1-215-901-00	METAL OXIDE	33K	5%	2W	F
R609	1-249-401-11	CARBON	47	5%	1/4W	
R610	1-249-385-11	CARBON	2.2	5%	1/4W	F
R611	1-249-385-11	CARBON	2.2	5%	1/4W	F
R612	1-217-193-00	WIREWOUND	0.27	10%	2W	F
R613	1-249-401-11	CARBON	47	5%	1/4W	
R614	1-205-919-11	WIREWOUND	220	10%	10W	F
R616	1-249-417-11	CARBON	1K	5%	1/4W	
R617	1-249-411-11	CARBON	330	5%	1/4W	
R618	1-218-022-51	METAL OXIDE	560	5%	1W	
R619	1-249-429-11	CARBON	10K	5%	1/4W	
R620	1-249-433-11	CARBON	22K	5%	1/4W	
R621	1-249-431-11	CARBON	15K	5%	1/4W	
R622	1-249-429-11	CARBON	10K	5%	1/4W	
R623	1-249-377-11	CARBON	0.47	5%	1/4W	F
R624	1-249-411-11	CARBON	330	5%	1/4W	
R625	1-218-017-51	METAL OXIDE	220	5%	1W	
R626	1-249-411-11	CARBON	330	5%	1/4W	
R627	1-218-019-51	METAL OXIDE	330	5%	1W	
R628	1-249-393-11	CARBON	10	5%	1/4W	
R629	1-249-411-11	CARBON	330	5%	1/4W	
R630	1-249-437-11	CARBON	47K	5%	1/4W	
R633	1-249-405-11	CARBON	100	5%	1/4W	
R634	1-218-020-51	METAL OXIDE	390	5%	1W	
R635	1-249-429-11	CARBON	10K	5%	1/4W	
R636	1-249-429-11	CARBON	10K	5%	1/4W	
R642	1-216-343-00	METAL OXIDE	0.33	5%	1W	F
R643	1-217-192-21	WIREWOUND	0.22	10%	2W	F
R647	1-216-485-11	METAL OXIDE	5.6K	5%	3W	F
R648	1-216-485-11	METAL OXIDE	5.6K	5%	3W	F
R650	1-249-417-11	CARBON	1K	5%	1/4W	
R651	1-249-405-11	CARBON	100	5%	1/4W	
R652	1-215-493-00	CARBON	1M	5%	1/4W	
R802	1-249-443-11	CARBON	0.47	5%	1/4W	F
R805	1-249-448-11	CARBON	1.2	5%	1/4W	F
R806	1-249-439-11	CARBON	68K	5%	1/4W	
R807	1-218-025-51	METAL OXIDE	1K	5%	1W	
R809	1-202-821-11	SOLID	1.8K	10%	1/2W	
R810	1-202-818-00	SOLID	1K	10%	1/2W	
R811	1-218-013-51	METAL OXIDE	100	5%	1W	
R812	1-244-917-00	CARBON	68K	5%	1/2W	
R815	1-215-884-11	METAL OXIDE	47	5%	2W	F
R816	1-218-023-51	METAL OXIDE	680	5%	1W	
R817	1-249-417-11	CARBON	1K	5%	1/4W	
R820	1-249-403-11	CARBON	68	5%	1/4W	
R821	1-247-725-11	CARBON	10K	5%	1/4W	F

D **V**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description				Remark
R822	1-217-778-11	FUSIBLE	1K	5%	1W	F
R825	1-216-349-00	METAL OXIDE	1	5%	1W	F
R826	1-249-441-11	CARBON	100K	5%	1/4W	
R827	1-249-429-11	CARBON	10K	5%	1/4W	
R828	1-249-423-11	CARBON	3.3K	5%	1/4W	
R829	1-249-418-11	CARBON	1.2K	5%	1/4W	
R830	1-249-429-11	CARBON	10K	5%	1/4W	
R831	1-215-088-00	METAL	2.2	5%	1/4W	
R1001	1-249-421-11	CARBON	2.2K	5%	1/4W	
R1002	1-249-423-11	CARBON	3.3K	5%	1/4W	
R1003	1-249-413-11	CARBON	470	5%	1/4W	
R1004	1-249-408-11	CARBON	180	5%	1/4W	
R1006	1-249-408-11	CARBON	180	5%	1/4W	
R1007	1-249-408-11	CARBON	180	5%	1/4W	
R1009	1-249-417-11	CARBON	1K	5%	1/4W	
R5501	1-249-429-11	CARBON	10K	5%	1/4W	
R5502	1-249-417-11	CARBON	1K	5%	1/4W	
R5503	1-249-389-11	CARBON	4.7	5%	1/4W	
R5504	1-215-493-00	CARBON	1M	5%	1/4W	
R5505	1-249-393-11	CARBON	10	5%	1/4W	

VARIABLE RESISTOR

RV501	1-228-991-00	RES, ADJ, CARBON 2.2K
RV502	1-230-630-11	RES, ADJ, CARBON 10K
RV601	1-228-990-00	RES, ADJ, CARBON 1K

SPARK GAP

SG801	1-519-063-XX	DISCHARGING GAP

TRANSFORMER

T601	⚠.1-448-961-11	S.R.T
T602	⚠.1-424-011-11	TRANSFORMER, PULSE
T801	1-437-090-00	HDT

TERMINAL PIN

TP91	*1-535-084-00	1P TERMINAL PIN

****

*A-1347-014-A V BOARD, COMPLETE
****

CAPACITOR

C01	1-126-101-11	ELECT	100MF	20%	16V
C02	1-124-120-11	ELECT	220MF	20%	16V
C03	1-124-119-00	ELECT	330MF	20%	16V
C04	1-124-477-11	ELECT	47MF	20%	16V
C05	1-126-101-11	ELECT	100MF	20%	16V
C06	1-124-120-11	ELECT	220MF	20%	16V
C07	1-124-499-11	ELECT	1MF	20%	50V
C08	1-102-951-00	CERAMIC	15PF	5%	50V
C09	1-102-074-00	CERAMIC	0.001MF	10%	50V
C10	1-102-824-00	CERAMIC	470PF	5%	50V
C11	1-110-182-81	MYLAR	0.022MF	10%	250V
C12	1-102-980-00	CERAMIC	270PF	5%	50V
C13	1-102-973-00	CERAMIC	100PF	5%	50V
C14	1-102-951-00	CERAMIC	15PF	5%	50V
C15	1-102-961-00	CERAMIC	27PF	5%	50V
C16	1-110-190-81	MYLAR	0.01MF	10%	400V
C17	1-110-171-81	MYLAR	0.047MF	10%	100V
C18	1-102-953-00	CERAMIC	18PF	5%	50V
C19	1-110-171-81	MYLAR	0.047MF	10%	100V
C20	1-102-978-00	CERAMIC	220PF	5%	50V
C21	1-110-173-81	MYLAR	0.068MF	10%	100V
C24	1-126-101-11	ELECT	100MF	20%	16V
C25	1-124-477-11	ELECT	47MF	20%	16V
C27	1-102-820-00	CERAMIC	330PF	5%	50V
C28	1-102-116-00	CERAMIC	680PF	10%	50V
C29	1-124-927-11	ELECT	4.7MF	20%	50V
C51	1-110-175-81	MYLAR	0.1MF	10%	100V
C52	1-110-175-81	MYLAR	0.1MF	10%	100V
C53	1-110-175-81	MYLAR	0.1MF	10%	100V
C54	1-110-175-81	MYLAR	0.1MF	10%	100V
C55	1-110-175-81	MYLAR	0.1MF	10%	100V
C56	1-110-175-81	MYLAR	0.1MF	10%	100V
C57	1-102-074-00	CERAMIC	0.001MF	10%	50V
C58	1-102-074-00	CERAMIC	0.001MF	10%	50V
C59	1-102-074-00	CERAMIC	0.001MF	10%	50V

FILM

CP01	1-235-977-11	NETWORK, RES, THICK FILM
CP02	1-235-977-11	NETWORK, RES, THICK FILM

TRIMMER

CT01	1-141-181-11	CAP, TRIMMER

DIODE

D01	8-719-109-89	DIODE RD5.6ES-B2
D02	8-719-110-36	DIODE RD13ES-B2
D03	8-719-911-19	DIODE 1SS119
D04	8-719-109-69	DIODE RD3.6ES-B2
D07	8-719-109-96	DIODE RD6.8ES-B1
D08	8-719-109-96	DIODE RD6.8ES-B1

IC

IC01	8-759-972-41	IC MAB8461P-W136
IC02	8-759-972-96	IC SAA5231-V6
IC03	8-759-946-85	IC SAA5243E
IC04	8-759-113-01	IC UPD4364CX-15L

COIL

L01	1-408-411-00	INDUCTOR	15UH
L02	1-410-468-11	INDUCTOR	6.8UH
L03	1-410-468-11	INDUCTOR	6.8UH
L04	1-410-468-11	INDUCTOR	6.8UH
L05	1-410-468-11	INDUCTOR	6.8UH
L06	1-410-468-11	INDUCTOR	6.8UH

TRANSISTOR

Q01	8-729-904-27	TRANSISTOR 2SD1761-E
Q02	8-729-177-43	TRANSISTOR 2SD774
Q03	8-729-900-80	TRANSISTOR DTC114ES
Q04	8-729-178-54	TRANSISTOR 2SC2785
Q05	8-729-177-43	TRANSISTOR 2SD774
Q06	8-729-178-54	TRANSISTOR 2SC2785
Q07	8-729-178-54	TRANSISTOR 2SC2785
Q09	8-729-117-54	TRANSISTOR 2SA1175
Q10	8-729-117-54	TRANSISTOR 2SA1175
Q11	8-729-117-54	TRANSISTOR 2SA1175

RESISTOR

Ref.No.	Part No.	Description				Remark
R01	1-215-867-00	METAL OXIDE	470	5%	1W	F
R02	1-249-425-11	CARBON	4.7K	5%	1/4W	
R04	1-215-867-00	METAL OXIDE	470	5%	1W	F
R05	1-215-128-00	METAL	100	5%	1/4W	
R06	1-249-417-11	CARBON	1K	5%	1/4W	
R07	1-249-405-11	CARBON	100	5%	1/4W	
R08	1-249-411-11	CARBON	330	5%	1/4W	
R09	1-249-438-11	CARBON	56K	5%	1/4W	
R13	1-249-405-11	CARBON	100	5%	1/4W	
R14	1-249-405-11	CARBON	100	5%	1/4W	
R15	1-215-493-00	CARBON	1M	5%	1/4W	
R16	1-249-420-11	CARBON	1.8K	5%	1/4W	
R17	1-249-417-11	CARBON	1K	5%	1/4W	
R18	1-249-425-11	CARBON	4.7K	5%	1/4W	
R19	1-249-411-11	CARBON	330	5%	1/4W	
R20	1-215-146-00	METAL	560	5%	1/4W	
R27	1-249-399-11	CARBON	33	5%	1/4W	
R28	1-249-399-11	CARBON	33	5%	1/4W	
R29	1-249-399-11	CARBON	33	5%	1/4W	
R30	1-215-130-00	METAL	120	5%	1/4W	
R31	1-215-130-00	METAL	120	5%	1/4W	
R32	1-215-130-00	METAL	120	5%	1/4W	
R33	1-249-404-00	CARBON	82	5%	1/4W	
R34	1-249-417-11	CARBON	1K	5%	1/4W	
R37	1-249-405-11	CARBON	100	5%	1/4W	
R38	1-249-416-11	CARBON	820	5%	1/4W	
R40	1-249-425-11	CARBON	4.7K	5%	1/4W	
R41	1-249-413-11	CARBON	470	5%	1/4W	
R43	1-249-425-11	CARBON	4.7K	5%	1/4W	
R44	1-249-413-11	CARBON	470	5%	1/4W	
R45	1-215-152-00	METAL	1K	5%	1/4W	
R46	1-247-779-00	CARBON	6.8	5%	1/4W	

VARIABLE RESISTOR

Ref.No.	Part No.	Description
RV01	1-230-624-51	RES, ADJ, CARBON 220

CONNECTOR

Ref.No.	Part No.	Description
V1	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P
V2	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P
V3	*1-560-126-00	PLUG, CONNECTOR (2.5MM) 6P
V4	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)
V5	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)
V6	*1-508-784-00	1P PLUG

CRYSTAL

Ref.No.	Part No.	Description
X01	1-567-162-00	OSCILLATOR, CRYSTAL
X02	1-567-495-11	OSCILLATOR, CRYSTAL
X03	1-567-686-11	OSCILLATOR, CERAMIC

****

*A-1371-373-A J1 BOARD, COMPLETE
****

CAPACITOR

Ref.No.	Part No.	Description			Remark
C1401	1-123-875-11	ELECT	10MF	20%	50V
C1402	1-126-103-11	ELECT	470MF	20%	16V
C1403	1-102-112-00	CERAMIC	330PF	10%	50V
C1404	1-124-902-00	ELECT	0.47MF	20%	50V
C1405	1-101-003-00	CERAMIC	0.0047MF		50V
C1406	1-124-902-00	ELECT	0.47MF	20%	50V
C1407	1-124-477-11	ELECT	47MF	20%	16V
C1408	1-126-101-11	ELECT	100MF	20%	16V
C1409	1-124-908-11	ELECT	22MF	20%	50V
C1410	1-123-875-11	ELECT	10MF	20%	50V
C1411	1-123-875-11	ELECT	10MF	20%	50V
C1412	1-124-477-11	ELECT	47MF	20%	16V
C1413	1-124-477-11	ELECT	47MF	20%	16V
C1414	1-123-875-11	ELECT	10MF	20%	50V
C1415	1-124-902-00	ELECT	0.47MF	20%	50V
C1416	1-124-902-00	ELECT	0.47MF	20%	50V
C1417	1-124-120-11	ELECT	220MF	20%	16V
C1418	1-102-112-00	CERAMIC	330PF	10%	50V
C1419	1-102-112-00	CERAMIC	330PF	10%	50V
C1421	1-124-477-11	ELECT	47MF	20%	16V
C1423	1-110-182-81	MYLAR	0.022MF	10%	250V
C1424	1-110-182-81	MYLAR	0.022MF	10%	250V
C1425	1-124-902-00	ELECT	0.47MF	20%	50V
C1426	1-124-902-00	ELECT	0.47MF	20%	50V
C1427	1-101-003-00	CERAMIC	0.0047MF		50V
C1428	1-101-003-00	CERAMIC	0.0047MF		50V
C1429	1-101-003-00	CERAMIC	0.0047MF		50V
C1430	1-102-112-00	CERAMIC	330PF	10%	50V
C1431	1-124-902-00	ELECT	0.47MF	20%	50V
C1432	1-124-902-00	ELECT	0.47MF	20%	50V
C1433	1-126-101-11	ELECT	100MF	20%	16V
C1436	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1437	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1501	1-123-875-11	ELECT	10MF	20%	50V
C1502	1-123-875-11	ELECT	10MF	20%	50V
C1503	1-108-614-91	MYLAR	0.001MF	10%	100V
C1504	1-124-910-11	ELECT	47MF	20%	50V
C1505	1-110-171-81	MYLAR	0.047MF	10%	100V
C1507	1-108-620-91	MYLAR	0.0033MF	10%	100V
C1508	1-123-875-11	ELECT	10MF	20%	50V
C1509	1-124-499-11	ELECT	1MF	20%	50V
C1511	1-123-875-11	ELECT	10MF	20%	50V
C1512	1-110-188-81	MYLAR	0.0068MF	10%	400V
C1513	1-102-963-00	CERAMIC	33PF	5%	50V
C1514	1-110-183-81	MYLAR	0.027MF	10%	250V
C1515	1-102-117-00	CERAMIC	820PF	10%	50V

CONNECTOR

Ref.No.	Part No.	Description
CN1401	1-536-996-11	TERMINAL BOARD, INPUT/OUTPUT
CN1402	1-561-534-41	SOCKET 21P
CN1403	1-561-534-41	SOCKET 21P
CNJ25	*1-564-892-41	PLUG, CONNECTOR 3P
CNJ41	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P
CNJ43	*1-564-893-11	PLUG, CONNECTOR 4P
CNJ45	*1-564-894-11	PLUG, CONNECTOR 5P
CNJ51	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P
CNJ67	*1-560-721-21	PLUG, CONNECTOR 2P
CNJ142	*1-564-893-11	PLUG, CONNECTOR 4P

DIODE

Ref.No.	Part No.	Description
D1401	8-719-110-04	DIODE RD7.5ES-B3
D1403	8-719-110-04	DIODE RD7.5ES-B3
D1404	8-719-110-04	DIODE RD7.5ES-B3
D1405	8-719-110-04	DIODE RD7.5ES-B3
D1406	8-719-110-04	DIODE RD7.5ES-B3
D1407	8-719-110-18	DIODE RD10ES-B3
D1408	8-719-110-14	DIODE RD9.1ES-B3
D1409	8-719-110-04	DIODE RD7.5ES-B3
D1410	8-719-110-04	DIODE RD7.5ES-B3
D1415	8-719-110-04	DIODE RD7.5ES-B3

J1 J2

Ref.No.	Part No.	Description	Remark
D1418	8-719-110-04	DIODE RD7.5ES-B3	
D1419	8-719-110-04	DIODE RD7.5ES-B3	
D1420	8-719-110-04	DIODE RD7.5ES-B3	
D1501	8-719-912-20	DIODE 1SS120	
D1502	8-719-911-19	DIODE 1SS119	
D1503	8-719-911-19	DIODE 1SS119	
D1504	8-719-911-19	DIODE 1SS119	
D1505	8-719-000-12	DIODE MC931	
D1506	8-719-110-85	DIODE RD36ES-B4	
D1507	8-719-911-19	DIODE 1SS119	

IC

IC1401	8-752-032-27	IC CXA1114P	
IC1402	8-759-946-32	IC TEA2014A	
IC1501	8-759-942-16	IC TEA2031A	

TRANSISTOR

Q1401	8-729-117-54	TRANSISTOR 2SA1175	
Q1402	8-729-117-54	TRANSISTOR 2SA1175	

RESISTOR

Ref.No.	Part No.	Description				Remark
R1401	1-249-404-00	CARBON	82	5%	1/4W	
R1402	1-247-698-11	METAL	68	5%	1/4W	
R1403	1-249-437-11	CARBON	47K	5%	1/4W	
R1404	1-249-413-11	CARBON	470	5%	1/4W	
R1405	1-249-429-11	CARBON	10K	5%	1/4W	
R1407	1-247-895-00	CARBON	470K	5%	1/4W	
R1408	1-249-434-11	CARBON	27K	5%	1/4W	
R1409	1-249-413-11	CARBON	470	5%	1/4W	
R1410	1-249-434-11	CARBON	27K	5%	1/4W	
R1411	1-249-413-11	CARBON	470	5%	1/4W	
R1412	1-249-437-11	CARBON	47K	5%	1/4W	
R1413	1-247-895-00	CARBON	470K	5%	1/4W	
R1414	1-249-437-11	CARBON	47K	5%	1/4W	
R1415	1-249-434-11	CARBON	27K	5%	1/4W	
R1416	1-249-434-11	CARBON	27K	5%	1/4W	
R1417	1-249-404-00	CARBON	82	5%	1/4W	
R1418	1-247-738-11	CARBON	82	5%	1/2W	F
R1419	1-249-409-11	CARBON	220	5%	1/4W	
R1420	1-249-409-11	CARBON	220	5%	1/4W	
R1422	1-249-417-11	CARBON	1K	5%	1/4W	
R1423	1-249-434-11	CARBON	27K	5%	1/4W	
R1424	1-249-434-11	CARBON	27K	5%	1/4W	
R1425	1-249-417-11	CARBON	1K	5%	1/4W	
R1426	1-249-417-11	CARBON	1K	5%	1/4W	
R1427	1-249-417-11	CARBON	1K	5%	1/4W	
R1428	1-247-895-00	CARBON	470K	5%	1/4W	
R1429	1-247-895-00	CARBON	470K	5%	1/4W	
R1430	1-249-404-00	CARBON	82	5%	1/4W	
R1433	1-249-409-11	CARBON	220	5%	1/4W	
R1434	1-249-393-11	CARBON	10	5%	1/4W	F
R1437	1-249-429-11	CARBON	10K	5%	1/4W	
R1440	1-249-415-11	CARBON	680	5%	1/4W	
R1441	1-249-415-11	CARBON	680	5%	1/4W	
R1442	1-249-437-11	CARBON	47K	5%	1/4W	
R1443	1-249-437-11	CARBON	47K	5%	1/4W	
R1444	1-249-409-11	CARBON	220	5%	1/4W	
R1445	1-249-440-11	CARBON	82K	5%	1/4W	
R1447	1-249-409-11	CARBON	220	5%	1/4W	
R1448	1-249-409-11	CARBON	220	5%	1/4W	
R1450	1-249-413-11	CARBON	470	5%	1/4W	
R1451	1-249-413-11	CARBON	470	5%	1/4W	
R1452	1-249-412-11	CARBON	390	5%	1/4W	
R1453	1-249-412-11	CARBON	390	5%	1/4W	
R1454	1-247-703-11	METAL	180	5%	1/4W	
R1455	1-247-703-11	METAL	180	5%	1/4W	
R1501	1-249-433-11	CARBON	22K	5%	1/4W	
R1502	1-249-434-11	CARBON	27K	5%	1/4W	
R1503	1-247-895-00	CARBON	470K	5%	1/4W	
R1504	1-249-435-11	CARBON	33K	5%	1/4W	
R1505	1-249-433-11	CARBON	22K	5%	1/4W	
R1506	1-247-895-00	CARBON	470K	5%	1/4W	
R1509	1-247-887-00	CARBON	220K	5%	1/4W	
R1510	1-249-426-11	CARBON	5.6K	5%	1/4W	
R1511	1-249-417-11	CARBON	1K	5%	1/4W	
R1512	1-249-429-11	CARBON	10K	5%	1/4W	
R1513	1-249-438-11	CARBON	56K	5%	1/4W	
R1514	1-249-417-11	CARBON	1K	5%	1/4W	
R1515	1-215-489-00	CARBON	680K	5%	1/4W	
R1516	1-249-432-11	CARBON	18K	5%	1/4W	
R1517	1-249-410-11	CARBON	270	5%	1/4W	
R1518	1-249-429-11	CARBON	10K	5%	1/4W	
R1519	1-247-883-00	CARBON	150K	5%	1/4W	
R1520	1-247-895-00	CARBON	470K	5%	1/4W	
R1521	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1556	1-249-426-11	CARBON	5.6K	5%	1/4W	

VARIABLE RESISTOR

RV1501	1-228-999-00	RES, ADJ, CARBON 470K	
RV1502	1-228-994-00	RES, ADJ, CARBON 10K	
RV1503	1-228-995-00	RES, ADJ, CARBON 22K	
RV1504	1-228-990-00	RES, ADJ, CARBON 1K	
RV1505	1-228-999-00	RES, ADJ, CARBON 470K	
RV1506	1-228-995-00	RES, ADJ, CARBON 22K	
RV1507	1-230-504-11	RES, ADJ, CARBON 220	
RV1508	1-228-994-00	RES, ADJ, CARBON 10K	
RV1509	1-228-999-00	RES, ADJ, CARBON 470K	

****

*1-625-205-11 J2 BOARD
****

CAPACITOR

C1401	1-126-105-11	ELECT	1000MF	20%	35V	
C1402	1-126-105-11	ELECT	1000MF	20%	35V	

CONNECTOR

CNJ23	*1-564-893-11	PLUG, CONNECTOR 4P	
CNJ242	*1-564-893-11	PLUG, CONNECTOR 4P	

JACK

J1401	1-507-806-00	JACK	

RESISTOR

R1401	1-215-144-00	METAL	470	5%	1/4W	
R1402	1-215-144-00	METAL	470	5%	1/4W	

Ref.No.	Part No.	Description			Remark
	*1-625-201-11	H3 BOARD ********			

CONNECTOR

CNH302	*1-564-898-11	PLUG, CONNECTOR 9P			
CNH303	*1-564-892-41	PLUG, CONNECTOR 3P			

DIODE

D1405	8-719-812-41	DIODE TLR124			
	*4-348-208-00	HOLDER, LED; D1405			

SWITCH

S1401	1-571-085-21	SWITCH, TACTICLE			
S1402	1-571-085-21	SWITCH, TACTICLE			
S1403	1-571-085-21	SWITCH, TACTICLE			
S1404	1-571-085-21	SWITCH, TACTICLE			
S1405	1-571-085-21	SWITCH, TACTICLE			
S1406	1-571-085-21	SWITCH, TACTICLE			
S1407	1-571-085-21	SWITCH, TACTICLE			
S1408	1-571-085-21	SWITCH, TACTICLE			
S1409	1-571-085-21	SWITCH, TACTICLE			
S1410	1-571-085-21	SWITCH, TACTICLE			
S1411	1-571-085-21	SWITCH, TACTICLE			
S1412	1-571-085-21	SWITCH, TACTICLE			
S1414	1-571-085-21	SWITCH, TACTICLE			

****

	*1-625-202-11	H4 BOARD ********			
	*4-387-825-01	HOLDER, LED			

CONNECTOR

CNH401	*1-564-884-11	PLUG, CONNECTOR 7P			
CNH403	*1-564-880-31	PLUG, CONNECTOR 3P			

DIODE

D1401	8-719-101-08	DIODE SEL112NP-N			
	*4-387-801-01	HOLDER, LED; D1401			
D1402	8-719-101-08	DIODE SEL112NP-N			
	*4-387-801-01	HOLDER, LED; D1402			
D1403	8-719-101-08	DIODE SEL112NP-N			
	*4-387-801-01	HOLDER, LED; D1403			
D1404	8-719-948-31	DIODE LD-201VR			

IC

IC1401	8-741-138-70	IC BX-1387			

****

	*1-625-206-11	KS BOARD ********			

CAPACITOR

C202	1-124-902-00	ELECT	0.47MF	20%	50V
C203	1-124-477-11	ELECT	47MF	20%	16V
C204	1-124-902-00	ELECT	0.47MF	20%	50V
C205	1-124-927-11	ELECT	4.7MF	20%	50V
C206	1-124-477-11	ELECT	47MF	20%	16V

Ref.No.	Part No.	Description			Remark
C207	1-124-927-11	ELECT	4.7MF	20%	50V
C213	1-124-908-11	ELECT	22MF	20%	50V
C214	1-110-188-81	MYLAR	0.0068MF	10%	400V
C217	1-110-188-81	MYLAR	0.0068MF	10%	400V
C218	1-110-182-81	MYLAR	0.022MF	10%	250V
C219	1-110-182-81	MYLAR	0.022MF	10%	250V
C220	1-108-620-91	MYLAR	0.0033MF	10%	100V
C221	1-108-620-91	MYLAR	0.0033MF	10%	100V
C222	1-110-182-81	MYLAR	0.022MF	10%	250V
C223	1-110-182-81	MYLAR	0.022MF	10%	250V
C224	1-110-190-81	MYLAR	0.01MF	10%	400V
C225	1-136-173-00	FILM	0.47MF	5%	50V
C226	1-136-173-00	FILM	0.47MF	5%	50V
C227	1-110-182-81	MYLAR	0.022MF	10%	250V
C228	1-110-184-81	MYLAR	0.033MF	10%	250V
C229	1-110-192-81	MYLAR	0.015MF	10%	400V
C230	1-110-192-81	MYLAR	0.015MF	10%	400V
C231	1-124-902-00	ELECT	0.47MF	20%	50V
C232	1-123-875-11	ELECT	10MF	20%	50V
C233	1-102-114-00	CERAMIC	470PF	10%	50V
C234	1-102-114-00	CERAMIC	470PF	10%	50V
C235	1-102-114-00	CERAMIC	470PF	10%	50V
C236	1-102-114-00	CERAMIC	470PF	10%	50V
C237	1-124-902-00	ELECT	0.47MF	20%	50V
C238	1-102-978-00	CERAMIC	220PF	5%	50V
C239	1-126-103-11	ELECT	470MF	20%	16V

CONNECTOR

CNK21	*1-562-370-21	CONNECTOR, BOARD TO BOARD 18P			
CNK25	*1-564-880-31	PLUG, CONNECTOR 3P			

DIODE

D201	8-719-110-14	DIODE RD9.1ES-B3			
D202	8-719-110-14	DIODE RD9.1ES-B3			
D205	8-719-110-04	DIODE RD7.5ES-B3			
D206	8-719-110-04	DIODE RD7.5ES-B3			

IC

IC201	8-759-013-17	IC TDA6200			

TRANSISTOR

Q201	8-729-178-54	TRANSISTOR 2SC2785			
Q202	8-729-178-54	TRANSISTOR 2SC2785			

RESISTOR

R201	1-249-441-11	CARBON	100K	5%	1/4W
R202	1-249-425-11	CARBON	4.7K	5%	1/4W
R203	1-249-441-11	CARBON	100K	5%	1/4W
R204	1-249-435-11	CARBON	33K	5%	1/4W
R205	1-249-435-11	CARBON	33K	5%	1/4W
R206	1-249-423-11	CARBON	3.3K	5%	1/4W
R207	1-249-423-11	CARBON	3.3K	5%	1/4W
R208	1-249-431-11	CARBON	15K	5%	1/4W
R209	1-249-433-11	CARBON	22K	5%	1/4W
R210	1-249-431-11	CARBON	15K	5%	1/4W
R211	1-249-441-11	CARBON	100K	5%	1/4W
R212	1-249-433-11	CARBON	22K	5%	1/4W
R213	1-249-431-11	CARBON	15K	5%	1/4W
R214	1-249-417-11	CARBON	1K	5%	1/4W
R215	1-249-433-11	CARBON	22K	5%	1/4W

Ks

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description				Remark
R216	1-249-433-11	CARBON	22K	5%	1/4W	
R217	1-249-431-11	CARBON	15K	5%	1/4W	
R218	1-249-417-11	CARBON	1K	5%	1/4W	
R219	1-249-429-11	CARBON	10K	5%	1/4W	
R220	1-249-425-11	CARBON	4.7K	5%	1/4W	
R221	1-249-417-11	CARBON	1K	5%	1/4W	
R222	1-249-417-11	CARBON	1K	5%	1/4W	
R223	1-249-413-11	CARBON	470	5%	1/4W	
R224	1-249-413-11	CARBON	470	5%	1/4W	
R225	1-249-417-11	CARBON	1K	5%	1/4W	
R226	1-249-417-11	CARBON	1K	5%	1/4W	
R227	1-249-417-11	CARBON	1K	5%	1/4W	
R228	1-249-417-11	CARBON	1K	5%	1/4W	
R229	1-249-441-11	CARBON	100K	5%	1/4W	
R230	1-249-441-11	CARBON	100K	5%	1/4W	

****

MISCELLANEOUS
****

Ref.No.	Part No.	Description	Remark
	⚠.1-451-295-21	DEFLECTION YOKE (SY-153E)	
	1-452-032-00	MAGNET, DISK; 10MM ø	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ø	
	1-452-277-00	MAGNET, BMC	
	1-503-642-21	SPEAKER	
	1-543-179-00	CORE, RING	
	⚠.1-559-346-11	CORD, POWER (WITH CONNECTOR)	
L901	⚠.1-426-326-11	COIL, DEMAGNETIZATION	
T802	⚠.1-439-416-11	TRANSFORMER ASSY, FLYBACK	
V901	⚠.8-738-753-05	PICTURE TUBE (A51JUH60X)	

****

ACCESSORIES AND PACKING MATERIALS
****

Part No.	Description	Remark
A-1470-844-A	COMMANDER ASSY (RM-673)	
*4-377-015-01	BAG, PROTECTION	
*4-387-852-01	CUSHION (UPPER) (ASSY)	
*4-387-853-01	CUSHION (LOWER) (ASSY)	
*4-387-854-01	INDIVIDUAL CARTON	
4-482-524-71	MANUAL, INSTRUCTION	

9-964-008-01

Sony Corporation
TV Group

English
88CJ0543-1
Printed in Japan

© 1988. 3